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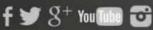


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Are you still friends with the bodybuilders you trained with decades ago?

- SFAN O

WITHOUT A DOUBT. The friends I made along the way in bodybuilding are some of the best and longest-lasting relationships in my life. Frank Zane, Bill Grant and Ed Corney always have carte blanche when they set up their booths at my Arnold Sports Festival. And Franco Columbu, whom I trained with and starred in movies with, remains my closest friend of all - we still play chess together nearly every weekend. Last July, paparazzi took some shots of Lou Ferrigno and me training in Gold's Gym together. We weren't there for a photo op - we were just two old buddies who wanted to get a workout in.

Most friendships aren't based on competition; they're formed over common interests. But body-building friendships have both. People who train together form bonds not unlike soldiers who are forced to share a foxhole. They help each other through adversity and share both triumphs and defeats. They push each other to be better and check each other's egos. If you're not satisfied with the friends in your life, find someone to go to the gym with. Maybe in another 40 years, they'll be taking pictures of the two of you still training together.

Yours in iron.

Arnold Schwarzenegger



Executive Editor Arnold Schwarzenegger Editor in Chief Shawn Perine **FVP/Group Publishing Director** Chris Scarding Managing Editor Brian Good **Group Training Director** Sean Hyson **Group Creative Director** Andy Turnbull Senior Editor Joe Wuebben

PUBLISHER

Ian Brooks

FDITORIAL

Editor Gary Phillips; gary@paragonmedia.com.au

Chief Sub Editor Alison Turner

ART

Art Director Lee McLachlan

SUBSCRIPTIONS

Subscriptions Manager Julie Hughes (02) 9439 1955; subs@paragonmedia.com.au

ADVERTISING

Advertising Representative Sonia Halstead sonia@paragonmedia.com.au: 0411 515 871

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Level 2, 174 Willoughby Road, Crows Nest, NSW 2065 PO Box 81, St Leonards, NSW 1590 Tel: (02) 9439 1955 Fax: (02) 9439 1977

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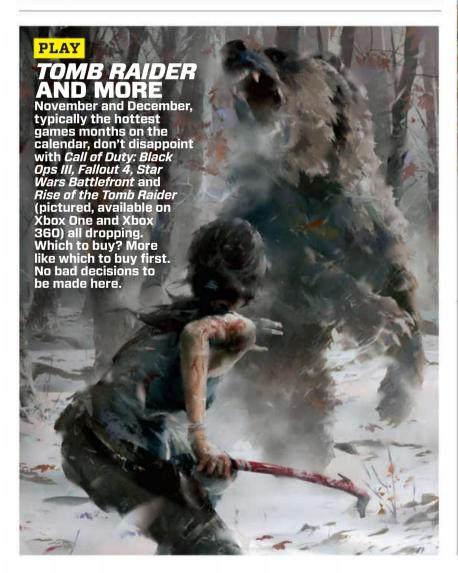




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WHAT YOU NEED TO KNOW THIS MONTH







ORGANIC BEEF

Consumer Reports tested more than 180 kilos of conventionally raised beef (using antibiotics and growth hormone) from around the country and found that it was twice as likely to contain drug-resistant "superbugs".

WHIZZ

JUST MIX & GO

Meet your new best buddy this summer: the George Foreman Mix & Go XL Blast is perfect for whizzing up a superfood or protein shake, or for making up a batch of margaritas on the weekend. Whooh!

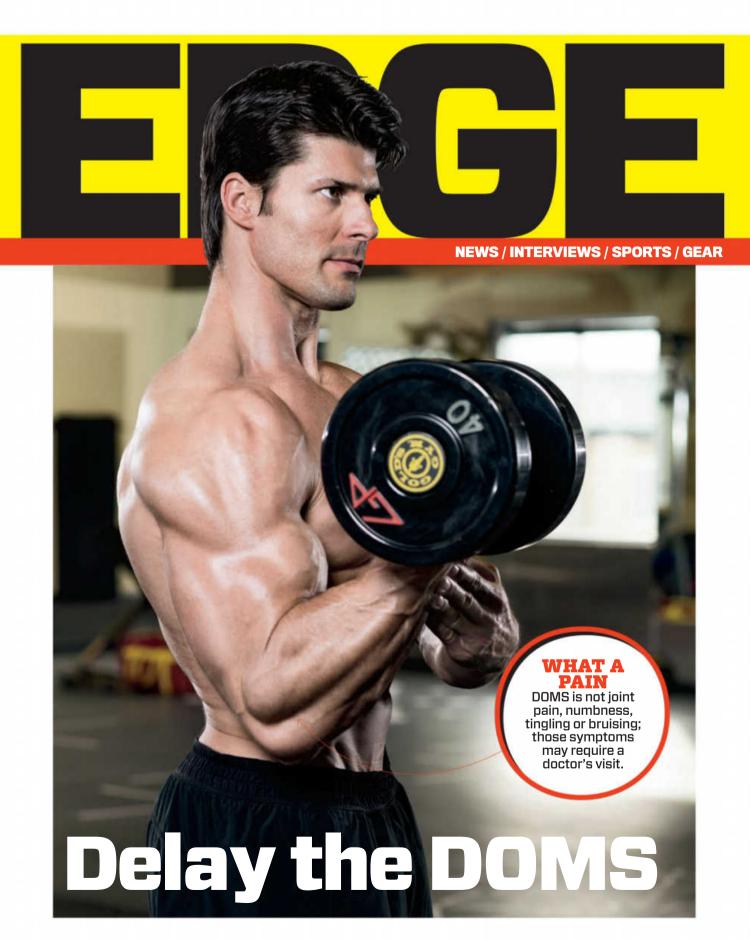


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activity you can

begin to lose

significant

muscle mass.



Delayed onset muscle soreness, or DOMS, is a feeling lifters love to hate. Here's how to keep your stiff muscles in check, BY DR VICTOR PRISK

IF ACHY QUADS, thighs or calves have left you limping a day or so after a marathon legs workout, you've experienced delayed onset muscle soreness, or DOMS, Sore, stiff and weak muscles can affect the ability to repeat exercises in consecutive workouts, thereby forcing a rotating training schedule. Acute causes of DOMS are up for debate, but the answer is likely multifactorial and may involve the accumulation of lactic acid, inflammation, free radical damage and connective tissue damage. However, since DOMS more commonly occurs after heavy eccentric or "negative" movements, it's thought that structural damage leads to the inflammation and pain.

Plan to overcome the DOMS of one training session before working the same muscle groups again. If severe, you may need to take a few days off to stretch, massage, ice, heat, and medicate your tender muscles. Stiff muscles restrict your joints'

range of motion, causing neuromuscular function to become dysfunctional. This nerve-to-muscle miscommunication causes irregularity of otherwise familiar movements and can lead to injury.

Periodised training that modulates training intensity, exercise types and volume can help curb the performance detriment of DOMS. Nutritional approaches include:

1) Taking two to four grams of leucine from high-quality sources like whey isolate from a complete protein post-workout to limit muscle damage and ignite protein synthesis.

2) Taking caffeine pre- and postexercise to improve neuromuscular recovery.

3) Adopting a diet rich in omega-3 fatty acids from sources like fish oil, and eating more leafy greens. This can reduce inflammation and provide you with an influx of free-radical quenching antioxidants and nitric oxide-releasing nitrates.

🧻 Is my heartrate monitor accurately reading how many calories I'm burning?"

- JON M

"It probably has a margin of error of about 15 percent," says Dr John

Higgins, associate professor of medicine at the University of Texas Medical School, US. According to Dr Higgins, factors such as height, weight and age help predict calories burned based on common algorithms, but your general fitness level, gender. genetics, exercise duration and body-mass index also help determine calories burned, he adds. The most accurate models use both a chest strap and wrist monitor.

How long does it take to start losing muscle if you've stopped exercising due to injury?

- ANDREW M

"Injury often puts a muscle to rest - and rest is bad for muscles," says Dr William Roberts, a sports medicine specialist. Studies show that a person at bed rest can lose about 20 percent of his muscle strength and muscle mass in just one week. "The clinical example we often use is an athlete who is placed in a knee immobiliser on Friday night for an injury and then rechecked on Monday. The circumference of the quad above the knee will have shrunk considerably," says Dr Roberts. Bottom line: if you can move your muscles without pain. do at least a few minutes of light exercise each day.

JOHN FEDELE/CORBIS

ALTHOUGH HEAVY ECCENTRIC TRAINING IS A GREAT WAY TO BUILD MUSCLE AND STRENGTH, IT SHOULDN'T BE THE FOUNDATION OF YOUR TRAINING.

Daring to dream

After years of trial, error and injury, Abhijit Chattaraj finally achieves his lifelong dream physique. BY MELITA JAGIC

SELF-CONFESSED COMPUTER

nerd Abhijit Chattaraj got jacked and ripped while editing over 60+ hours of footage to create Dare2Dream: The Flex Wheeler Story - a film featuring Flex Wheeler (with a cameo from Arnold Schwarzenegger).

Growing up in Kolkata, India, Abhiiit (or AB as his friends call him) was a huge Arnold Schwarzenegger fan. As his interest in bodybuilding grew, Abhijit began to admire Flex Wheeler and was amazed by Flex's story of overcoming adversity and pushing limits. Little did he know, many years later he'd be rubbing shoulders with these living legends.

Inspired by his heroes. Abhiiit began chasing his dream physique. Back then, he didn't have access to state of the art equipment, so he built a makeshift home gvm which included shopping bags filled with bricks and buckets filled with sand. He eventually saved up enough to join a gym that had concrete weights and a single bench press rack that all the big boys used to fight over. Despite what now seem like difficult conditions. "I was bitten by the lifting bug," Abhijit tells us. "I knew little about training but loved the discipline of waking early and walking to the gym and training until I was ready to pass out."

Life eventually brought him to Australia where he threw himself into university studies. His fitness crusade continued as he began tae kwon do and competed in National and Oceanic level events; bringing back medals and eventually earning a 4th dan black belt. But all the competing and hard training took its toll. Abhijit was racking up a long list of injuries: surgery on both knees, a torn ankle, torn shoulders, torn cornea,

ruptured ear drums, broken ribs, broken teeth, rotator cuff tears...

Eventually the pressures of life took over, training began to slide and a desk job meant the weight began to pile on. In 2012, he had a prostate scare requiring heavy medication. A vear later, things really came to a head when Abhiiit was laid up with lower back problems sand was unable to train. He was also diagnosed with accessory navicular syndrome - a protrusion in his right ankle that meant he couldn't put his weight on that foot. "I realised I was depressed," Abhijit tells us. "I was feeling down all the time. I had to fight to dig myself out and resolved to fight back."

Abhijit's family and tae kwon do instructors were really supportive and encouraged his efforts. Around the same time Muscle & Fitness editor Gary Phillips invited him to collaborate on a documentary project on the life of Flex Wheeler, "I jumped at the opportunity," Abhijit says.

As he spent days and nights wading through Gary's collection of rare archive footage, Abhijit's passion for training was relit. Piecing together the story of Wheeler's own battles with depression. low self-esteem and health issues gave Abhiiit the determination he needed. "That's when I decided I was going to get a six pack!". Abhiiit tells us. "Over the years. I was always amazed by the transformation stories I read online. I tried over a dozen times to really get shredded but never quite made it. I'd get stronger and fitter but never really got the six pack I had dreamed of since I was a teenager".

Abhiiit had heard all sorts of feedback from trainers and friends, including those who discouraged him blaming his "weak genetics". But, inspired by Flex Wheeler's story, Abhijit decided to give it one last shot. He hired online diet coach Andy Morgan (of RippedBody.ip) to help with nutrition, and approached CrossFit Games athlete and champion bodybuilder Matthew Nicholson (of mmXfit.com) for training advice.

Andy suggested the lean-gains approach of adopting a low-carb-highfat diet combined with intermittent



fasting; and a 5x5 style lifting program focusing on compound lifts such as deadlifts, squats and bench-press. "There were no isolation movements or ab work in the program," says Abhijit. "I was shocked... but I put my faith in the system and followed it to the letter."

Moving from the conventional thinking of body-building style six to eight meals a day to eating two meals a day between an eight hour feeding window took some adjustment, but Abhijit was determined to make a go of it. Using advice from Morgan, Abhijit measured his body weight daily and used average weekly weight-loss stats to fine tune his macros. Virtually no cardio was involved in Abhijit's training; instead he relied on the intensity of the training and calorific restriction of the diet to cut down body-fat.

"After about six weeks I started to see results. I woke up one morning and was shocked when I looked in the mirror to see a clear set of abs starting to appear," Abhijit says excitedly. "That really acted like a booster! I dialed in my focus even more and gave it everything I had! It was a fun ride from there on out."

Old injuries flared up along the way, but Abhijit didn't let them get in the way. Using advice from Nicholson, he was able to train around challenges and kept his diet on track to finally achieve his life-long dream of the six-pack.

"2015 was a big year for me. I achieved my physique goals, overcame my so-called 'genetic weakness', and got to make a film featuring Flex wheeler and Arnold Schwarzenegger - two of my all-time favourites from the world of bodybuilding! Life is good," Abhijit says. His dreams became even more real when Abhijit got to meet both Arnold and Flex Wheeler when they visited Melbourne for the first Arnold Classic Australia. Arnold has even been tweeting about the film Abhijit and Gary have made - could it get any better?

"If I could do it, so can anyone out there," Abhijit says with a grin. "I'm just glad that I 'Dared to Dream'."





Bad shoe decisions could be damaging your body.

DODGY SHOES do your body damage. From trendy runners to thongs, bad shoe decisions can result in all-over body ailments like plantar fasciitis (heel pain), lower back pain, nerve problems, misaligned hips and bad posture.

"Among the patients I see every day, more than half are suffering pain and injury not just with their feet, but also their knees, their hips and backs," says sports podiatrist Karl Lockett of Sydney Heel Pain. "Bad decisions in their choice of footwear is often a contributing factor, and when pre-existing conditions such as overpronation are present, it exacerbates the problems even further."

It is estimated that around 70 per cent of the population suffer from an over-pronating foot - where their foot rolls inwards excessively.

"A tell-tale sign of over-pronation is an uneven wear pattern on the soles of shoes," Lockett says. "Check your current shoes to see if the inner edges are more worn out than the outer."

MISTAKES TO AVOID

Thongs They're a proud part of the Aussie national identity, but they feature no arch support, and are usually made of flat rubber or plastic. Beating the pavement with these flat flexible shoes all day can result in pressure point soreness, and may affect knees, hips and your back.

Lockett's recommendation

There are modified thong designs available that feature a heel gradient and thicker, moulded arch support.

Minimal runners People carrying more weight or doing exercises such as CrossFit or playing tennis should be wearing a shoe with more stability. If you're heavy and your foot over-pronates, you'll get more stress on the foot, and are more likely to develop injuries such as Achilles tendonitis and shin splints. This soft shoe can worsen pronation. If you pronate by 10 degrees and you wear a soft shoe, that pronation gets amped up to 20 degrees.

Lockett's recommendation
Cross trainers tend to have more
all-round stability. Look for a shoe
with a heel gradient of 15mm for
walking or running - this is less
likely to contribute to injuries.

Maximal runners

These shoes offer the maximum amount of cushioning and a lower heel-to-toe offset, to promote a midfoot strike. However, the heel height is higher than what podiatrists would usually recommend – around 32mm.

Maximals can negate some of our natural biomechanics that protect us from the pounding of pavement, creating a false sense of security, counter to the benefits of the shock absorption in the cushioning. If you're just starting out with training and have instability in your hips and lower back, using these shoes prevents you from strengthening yourself into a durable runner – risking injury.

Know your foot type and be well conditioned as a runner before you buy these. Proper strengthening and core work will ensure your running technique isn't affected negatively.

WHAT TO LOOK FOR

FIRMNESS

With your hands holding your shoe on each end, see if you can twist it one way at the bottom and one way at the top, to test the torsion. You don't want it to give too much to your twisting, so that it can support your foot when it rolls. If you can fold it in half, that's not a good thing.

TOE-BOX FIT

Choose shoes with a toe-box that actually accommodates the width of your toes – if you feel a squeeze and your outer toes are pushed tight against the sides, move on to another choice.

QUALITY MATERIALS

Always look for leather over synthetic materials – it lasts longer and breathes better.



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Carbs

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- Ideal for trainers who are looking to bulk up and gain
- lean muscle mass.









Body and Saul

Get your hands on the ultimate supermodel workout.

SHE'S A 177CM STUNNER.

but Aussie model Hannah Saul has more than the runway on her mind. The 25-year-old has just launched her own fitness app - HanxFit (hanxfit.com).

Hannah has been a popular model since she was 18 and is recognised for her Jets. Nookie and Bendon Lingerie Campaigns as well as numerous fashion spreads in popular magazines. In 2013, she started to make a name for herself in the fitness industry as she took to Instagram to share her workouts, heath tips and favourite healthy eats.

After receiving positive feedback from her young female followers, Hannah decided to create her own workout app to share with her audience. We managed to grab a quick chat with Hannah in between modeling and workout commitments.

Is the life of a model as glamorous as it seems?

Yes and no. It's great having a job where you get to be creative and get to work with new people all the time. I have been involved with some pretty amazing projects and I have been lucky enough to travel to some great locations.

The downside is that you live on call which makes planning your life a little harder as it's sometimes more davto-day with your diary. Thankfully I no longer get caught up in the hype of the industry, so at this stage of my career it is glamorous and rewarding.

How often do vou work out?

In an ideal world I would do a cardio session in the morning and a strength session in the afternoon. I also try to fit in Pilates once a week as well.

My cardio sessions are either going for a run which would be 5-8 kilometres and I use HanXFit everyday as I love to train outdoors and it's perfect for that, Also, depending on how much time I have I would do sprint or interval training.

Do you have a personal trainer?

I do have a trainer. Nick Tait. However 90 per cent of the time I train solo or with a friend as I'm constantly on the move.

Favourite form of exercise?

I like most types of exercise, but at the moment I'm enjoying sprint and interval training. It's a great opportunity to get yourself feeling energised at the start of the day, plus I get to listen to music in peace!

Least favourite?

Burpees! But they work.

Does being fit help you with your energy levels on long shoots?

Definitely. If I haven't done some form of exercise in the morning I find that

I get tired pretty early. You will often find me doing squats and lunges on a set just to energise myself again

Do vou follow a strict nutritional regimen?

It is not as strict as it used to be. Now I just make sure I train a little harder if I'm going out for ice cream! I generally stick to vegetables, meat. iuices and fruit, but I do love my chocolate and I probably enjoy wine a little too often!

Favourite cheat food?

I love Singapore noodles! Although I make it all the time so I guess I cheat a lot...

Tell us about your new app?

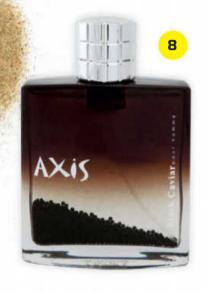
I have been working on HANxFIT for two years. Every time I go to launch it, I decide to change something.

The workouts on the app are broken up into bodyweight, gym, kettlebell and abs categories so you can use the app no matter where you want to train. There are beginner. intermediate and advanced levels for all workouts as well as photos and written explanations of every exercise and videos for those who want to see more of a visual. I created the app in conjunction with my PT Nick Tait.

You can pre-register for HANxFIT now at hanxfit.com/signup. Folllow Hannah on Instagram @hanxfit

Fit gifts

What's in Santa's gym bag this Christmas?





1





6





BOSE QUIETCOMFORT 20

These noise-cancelling headphones can be used in two ways, giving you control over what you hear and when. bose.com.au



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AXIS BLACK CAVIAR POUR HOMME

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IN THE PAST YEAR. IFBB men's physique pro Chase Savoie earned his pro card, won a pro show and competed in the Mr Olympia Men's Physique Showdown. Yet the former high school football player and 100-metre sprinter still trains like an athlete to build his top-notch physique. The explosive work helps him keep muscle while incinerating fat.

"During Olympia prep, I did speed work on Mondays, plyometrics on Wednesdays and another speed session on Friday," Savoie says.

For weightlifting, Savoie trains chest/ shoulders/triceps one day, back/biceps the second, legs the third, takes a day off, and repeats the split.

"On chest day I bench-press, back day I deadlift, and leg day I squat, all with heavy weight," Savoie says.

After a whirlwind 2015, Savoie's Mr Olympia showing lit a fire under him to train for perfection.

"The experience taught me even if you're a hair off, you'll pay the price."

SAVOIE'S CHEST & TRI WORKOUT

EXERCISE	SETS	REPS
Incline DB Press	4	6-8
Barbell bench press	4	10
Incline DB flye	3	10
Weighted dip	3	12
Cable crossover	3	10
DB pullover	3	10
Close-grip bench	4	10
Lying triceps extension	3	12
DB triceps kickback	3	10
Reverse triceps cable extension	3	15

SAVOIE'S STATS

WEIGHT AGE HEIGHT 25 178cm 86kg RESIDENCE

Los Angeles, US

INSTAGRAM @chasesavoie Allmax

SPONSOR

FUNCTION

"I never wanted to get so enormous. where I couldn't move like an athlete."



cardio session in the morning.



HAND ON HIP

In my front and side poses, I always put one hand on my hip and tense my shoulders up.



TIGHTEN UP

When I hit my front pose, I blow all the air out of my lungs, which makes the abs really pop.



BACK IT UP

During back poses, bring your shoulder blades all the way back and squeeze to bring out more detail.



Bench forabs

One of your favourite exercises can help give you a six-pack while pumping up your pecs.

BY SEAN HYSON

RTIALLY SUPPORTED MBBELL BENCH

LIE on a bench as if you were going to do a dumbbell bench press, but support only your head and upper back. Keep your hips up and your core braced.

PRESS the weights over your chest. Perform dumbbell presses as normal, but keep your core tight so your hips don't fall. Contract your glutes.

DID YOU KNOW? Suspending your body above the floor makes it act as its own bench to support the lift, drastically increasing the core involvement. For an even greater challenge, try pressing one arm at a time.



Coach of coaches

JOE DEFRANCO revolutionised strength training for US football and is now working on the fitness industry at large. AS TOLD TO SEAN HYSON

HUMBLE BEGINNINGS

The reason my business grew so much is because I was really focused on the basics. I used to work in health clubs, and I always found myself by the squat rack with clients doing squats, presses and chin-ups. My gym started out in a storage closet, 500 square feet. I had barbells, a rack, an adjustable bench, adjustable box, and we focused on technique. I made sure everybody could do the fundamental movement patterns properly, like squatting, lunging, pressing, pulling hip hinging.

THE MUST-DO EXERCISE

Everything you do has you hunched forward. Your pecs get short and tight and your upper back gets stretched out and weak

from being rounded over all day. That's why I recommend so many band pull-aparts. It's just to activate the muscles of your upper back. All my clients have a band that they can use. Every hour or so they'll do 15 or 20 reps.

FIND THE ISSUE AT HAND

I figured out how to train for every aspect of the test individually. I would find the limiting factor for each athlete and attack it. If somebody's slow, I find out why. It's either a technique, strength or flexibility issue. The reason may be his hip flexors are supertight, so we'd focus on a mobility program to lengthen them. We've shaved 0.24 seconds off athletes' 40-metredash times, on average.



NEED FOR SPEED DeFranco discovers an athlete's individual weakness, such as a lack of mobility holding back his running, and fixes it fast.

TESTING YOURSELF

At the Onnit Academy (in Texas. US, where DeFranco's Gym is located], we've been experimenting with the Omegawave, a device that measures an athlete's readiness to train. A cheaper, more low-tech way to do it is to test your vertical jump. If you're not within 90% of what you can usually jump, you're probably not ready to train hard that day. Instead, do some mobility work.

BENCH PRESSING

Brian Cushing [linebacker for the Houston Texans and a DeFranco client] got 30 reps at the combine 225 test. We did it by building his maximal strength. We train predominantly in the two-to five-rep range. The stronger your max is the less of a percentage of your max 225 is, so 225 feels easier. If you can bench 435 for one, 225 is easy to rep with.

A CERT THAT WORKS

The CPPS (a certification cocreated by DeFranco. cpps coaches.com1 combines science and real-world coaching. The certs that I took were a lot of science. When I passed them, I felt as if I knew what I was doing, but then a client walks up to you in the gym and you don't know what to do. We teach you how to coach, how to teach exercises. How to talk to people and how to design programs. Putting somebody through a workout and designing a program are different things.

TRAIN BODY WEIGHT

ANDY MCDERMOTT is a fitness coach

in Hollywood. For free training advice, follow him on Facebook: AndyMcDermottFitness, Instagram: @andymcdermottfitness and Twitter: @andymcd23



Connect four

Add a 50-metre sprint between four regular exercises for results that are anything but ordinary.

WHAT IT IS

The "Four Corners" workout designed by celebrity trainer Andy McDermott. This is circuit training in the traditional sense: you set up the four exercises as stations. 50 metres apart (in a square, hence the name) and sprint to each one. You'll do five rounds of 50 mountain climbers, 20 body-weight squats, eight T push-ups, and 30 jumping iacks. Since no equipment is required, it could also be set up as two stations, 50 metres apart.

WHY IT WORKS

Take away the sprinting and you have what would be a fairly demanding circuit either at home or in the gym. But by adding in 50-metre sprints between each exercise, an otherwise ordinary training circuit becomes a behemoth. If you don't have any space for sprints, do 10-second "deadmill" runs - hold onto the dashboard of a treadmill and push the unpowered belt with your feet as quickly as possible.

THE WORKOUT FOUR CORNERS

DIRECTIONS: do five rounds, sprinting 50 metres between exercises.

EXERCISE	REPS	
◀ Mountain climbe	er 50	
Body-weight squa	t 20	
T push-up*	4 (each side)	
Jumping jack	30	

*Perform a normal push-up, then rotate and reach to the sky with your free hand.

DID YOU KNOW? Andy McDermott modelled for promotional posters for Call of Duty: Black Ops III, out Nov 6.



Is soreness an indicator of an effective workout? BY BRYAN HAYCOCK

THERE AREN'T MANY WAYS

to gauge the quality of a workout. Sure, if you achieve a new personal best on a given exercise, you know you've been doing something right. But after years of training. particularly for bodybuilders, the goal is not always to push our max lifts higher and higher. So how do we tell if a workout really "worked"? Most of us, including myself, usually look for muscle soreness a day or two after a workout. We call this delayed onset muscle soreness (DOMS). The pain and stiffness usually increase in the hours after a workout and then peak around 24-48 hours later. In most cases it subsides and is gone within six to seven days. DOMS is the least ambiguous sign we have to use as a gauge. Unfortunately, if you've been training consistently for a few vears, you don't get sore after most workouts. This can be discouraging to a lot of people and often leads them to do unnecessary (if not ridiculous) things in order to try to develop DOMS after a workout. But is this really necessary? Is DOMS

really an accurate indicator of the effectiveness of a workout?

To answer this question, we need to take into consideration what actually causes DOMS and ask ourselves if it's even plausible that it may indicate when growth is going to happen as a result of our workout, DOMS is known to occur most often after an unaccustomed workout or when the intensity is much higher than what one is accustomed to. It is believed that this type of workout causes microscopic muscle damage and the infiltration of immune cells. This. along with the secretion of myokines, sensitises the nerves running through the tissue. The result of all this is a dull ache in the muscle in the days after training. So there is a theoretical connection between muscle damage and DOMS, vet when people are evaluated for muscle soreness there is poor correlation between actual markers of muscle damage and what they report as far as DOMS. This calls into question the logic that if I feel sore. I know I've caused micro-trauma in the muscle and triggered growth.

So is there at least a connection between muscle damage and growth? Yes. But it is not a required element. It's facultative at best. Muscle damage is known to activate satellite cells. which are very important to muscle growth. The type of loads known to lead to muscle damage also activate mechanotransductive anabolic pathways regardless of whether damage is actually inflicted on the cell. Nevertheless, damage is not required for this activation, as metabolic stress in the tissue can also activate them.

In the end, what we have are two independent outcomes of a potentially anabolic workout. DOMS may or may not result and is not always the sign of significant microtrauma. In addition. significant microtrauma is not always necessary for an anabolic response. Growth can occur with or without significant microtrauma and with or without DOMS. Does that mean I will no longer associate DOMS with an effective workout? Probably not, but I will also not be so discouraged if I'm not always sore after giving it my all in the gym.

Squat safely

Don't let knee or back pain stop your legs from growing. Squatting with the bar in a landmine unit ensures perfect technique and a full range of motion. BY SEAN HYSON

DID YOU KNOW?

You can squat deeper and protect your lower back by using a landmine unit.

HOW TO DO IT LANDMINE SQUAT

LOAD ONE END of the bar into a landmine unit, or wedge it into a corner. Grasp the other end and stand with your feet at shoulder width.

TAKE A DEEP BREATH and bend your hips back, squatting as low as you can. Push your knees apart as you descend.

QUICK TIP The arc the bar travels allows you to stay more upright than you would when doing a back squat. This lets you squat deeper, hitting your quads better, and protects your lower back. Supporting the weight in front of your body works the core as well. You can also use a landmine set-up for presses and rows.

Turn your exercise passion into a fitness career...

Thirteen years ago I founded the College of Health and Fitness to train high quality fitness professionals. Since then thousands of people have graduated and gone on to their dream job. With over 25 years experience in the industry I still get a buzz from passing on my knowledge to College students. Whether it's your first job or you're looking to start a new career, come and see us at The College of Health and Fitness and let us show you the Fitness industry!

The College of Health and Fitness has been providing quality training for Fitness professionals since 2002. We pride ourselves on our focus on personalised service and attention to detail, ensuring a rewarding and satisfying learning experience. Over the years many of our students have won awards and achieved great things!

Whether you are looking to work in the industry or just gain some knowledge to help with your fitness or training, our courses will provide the information you need. College staff have worked with clients starting out on their fitness journey and elite athletes including gold medal winners. Train with us and benefit from this knowledge.



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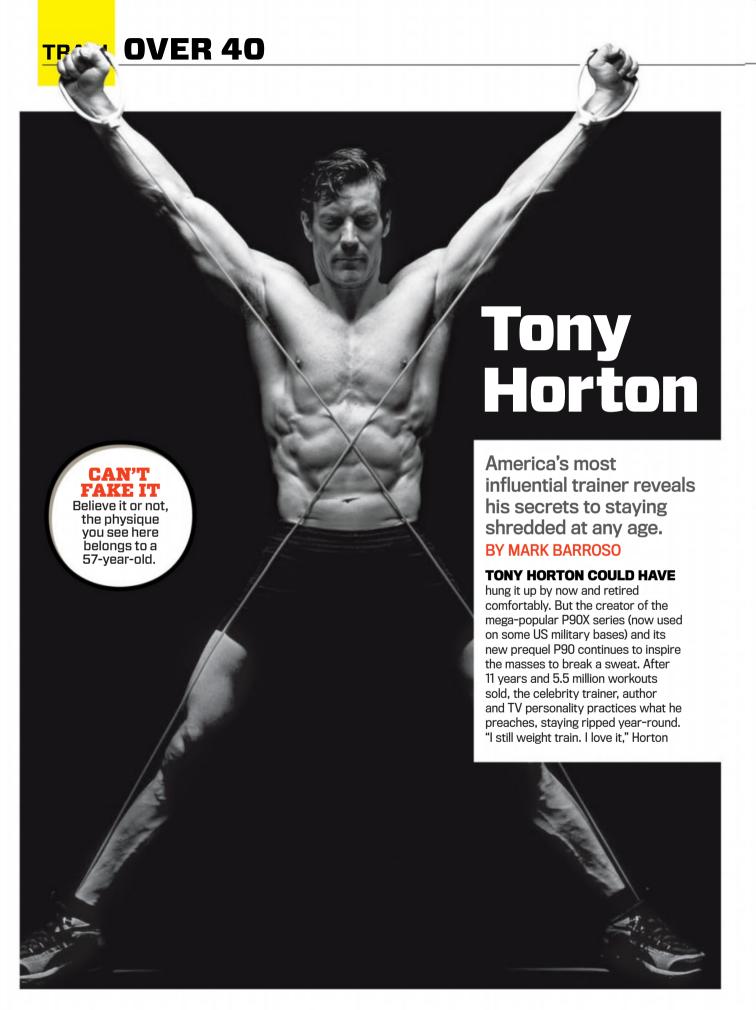








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says. "My training is everything and as often as possible."

Whether it's a P90X workout. running with Olympic medallist sprinters, doing Pilates, skiing or inviting guests to his house to train. Horton finds ways to be an athlete.

"At age 57, I'm pushing the envelope. If there are 40 moves I did when I was vounger, I do a majority of them, and I've added 50 more." Horton says, "I'm convinced that yoga [which Horton has integrated into his workout products] has kept me doing what I do."

In the gym, Horton favours traditional weight-training exercises and stresses variety.

"I recruit different muscles using several machines," Horton says. "I'm preventing the three things that cause the most problems for people: boredom, injury and plateaus."

Horton has been there and done that in terms of nutrition, too. He was a vegan/vegetarian for 15 years until he started eating free-range chicken. elk, bison and salmon. He realised the real culprit is sugar.

"I cut out 90 percent of my sugar 12 weeks ago, and I've never felt better," Horton says. "My waist is a 31 inch [79cm] and I eat six to eight servings of vegetables a day."

Check out Horton's workout split at right and his body-weight core workout on the previous page and see if you can keep up. Did we mention the guy is 57?

TONY'S WORKOUT SPLIT

Horton trains 25 times a month. This is a typical week:

MONDAY

CIRCUIT: 20 exercises, as a circuit. Thirteen are plyometrics: the rest are non-impact. including isometric leg moves. REPS: 30-100 per exercise

TUESDAY

SHOULDERS/ARMS: handstand push-up, Arnold press, military press, lateral raise, DB curl, cable curl, stability ball DB triceps extension.

WEDNESDAY

CARDIO CIRCUIT: rotate among jump rope, treadmill, VersaClimber, rowing machine, slideboard, bike and ski machine WORK: 3, 5 or 10 minutes per station REST: 15-20 seconds

THURSDAY

CHEST/BACK: flat/incline bench press, machine flye, lat pulldown, DB row. Alternate between chest and back moves. TOTAL SETS: 24

FRIDAY

CORE AND PLYOMETRICS: forward/lateral box jump, Bosu ball light barbell squat to press, walking kettlebell lunge, leg lift. TOTAL EXERCISES: 10

SATURDAY

YOGA: he takes 1-2 classes, each about 90 minutes long.

SUNDAY

SPEED AND BODY-WEIGHT TRAINING: track sprint, rope climb, ring muscle-up.

TONY HORTON SNAPSHOT

AGE 57 HEIGHT 178cm WEIGHT **78**ka

tonvhortonlife.com

RESIDENCE California. US

Tony Horton Fitness



"I STILL WEIGHT TRAIN. I LOVE IT. MY TRAINING IS EVERYTHING AND AS OFTEN AS POSSIBLE."

TONY'S BODY-WEIGHT CORE WORKOUT

Do two sets of 10 for each exercise. Do 10 reps per side for exercises 3, 5, 6, and 7.



CROSS CRUNCH

Perform two full sit-ups; on every third rep, do a bicycle crunch, touching knees to elbows.



DOLPHIN

From a plank, drive hips up towards the ceiling, return to plank, and tap right knee to right elbow. Switch sides and return to the plank.



PISTON CRUNCH

Lie on your back and curl knees into chest. Grab one foot with both hands: extend other leg. Switch sides.



FORFARM **JACK CURL**

From plank, crawl forward once on each forearm. Jump feet out wide. Return to plank. Crawl backwards and repeat.



THE X

Lie on back with arms and legs extended out in an X. Tap one hand to opposite foot above core. Lower back down. Switch sides.



FLIP-FLOP CRUNCH

From a side plank, crunch top elbow and knee in front of core. Get into full plank, then side plank. Crunch on other side.



CORKSCREW **TWIST**

Lie on back with legs vertical. Bring knees towards one shoulder. Lower legs. Tap heels on ground. Twist on other side.

WHAT'S IN THE FRIDGE THIS MONTH

SOMETHING FISHY...

Take in a dose of healthy omega-3 fats to boost muscle growth.

IN THE SWIM

If you want to build muscle, fish is your go-to food.

Fatten up

Healthy omega-3 fats support muscle growth.

BY STEVEN STIEFEL

FATS ARE A NUTRITIONAL

necessity, and bodybuilders need plenty of them to support muscle building and growth. Still, underconsuming omega-3s is strangely common among lifters. It's crucial for bodybuilders to understand that the type of omega-3s they need are EPA/DHA from fish. Most other foods are low in these healthy fats. Omega-6s and saturated fats also play an important role, but these are easy to come by in typical bodybuilding foods.

To take in more EPA and DHA, supplement with fish or krill oil. To balance the large amount of omega-6s already present in your diet, eat more salmon, sardines and other fatty fish, which are all foods that are high in omega-3s and low in 6s.

DON'T FEAR THE FAT!
HEALTHY FATS ARE
CRITICAL FOR MUSCLE
GROWTH AND OVERALL
HEALTH. SALMON
CONTAINS OFT-NEGLECTED
OMEGA-3 FATS.



DIET 000

I CAN'T TOLERATE WHEY PROTEIN PRODUCTS. WHAT SHOULD I DO?

In the distant past, egg protein was one of the best ways to go. Then soy came on the scene. Now there are plenty of other vegetarian sources, including pea, raspberry, peanut and brown rice products.

You can also rely more on whole-food sources of protein. After workouts, emphasise egg whites and low-fat white fish as your fast-digesting protein sources. The whites of boiled eggs are one of the fastest-digesting whole-food sources of protein, and steamed white fish is also quite rapidly digested. Meat, whole eggs or soy foods such as tofu and edamame can fit into your meal plan at other times throughout the day.

In the end, the best thing to do is experiment with both whole-food protein sources as well as protein supps to see which work well with your system and for your immediate needs.

Gut Check

Increase prebiotic consumption for greater fat loss and muscle gains BY STEVEN STIEFEL

A STUDY PUBLISHED at EBioMedicine concluded that obese children improved weight loss when consuming more prebiotics or indigestible carbs (essentially fibre).

Now, we realise you're not an overweight kid, but, the research can still benefit you and your training goals. In addition to an increase in prebiotics, the subjects consumed a diet with 30 percent fewer calories than their prior consumption levels. While the calorie reduction helped contribute to weight loss, researchers also noted a dramatic shift in healthy gut microflora – tiny microbes that help you process food more efficiently and encourage healthy

metabolism. Other studies have found that those people of healthy body weight have a much healthier range of microbial populations.

Researcher Dr John McCarthy

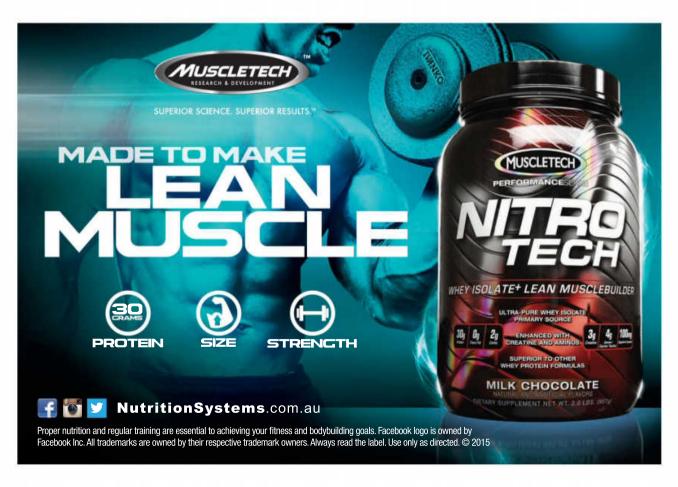
(University of Kentucky College of Medicine, US), postulates that your gut microbiome may play an important role in muscle hypertrophy.

The takeaway for you: fibre, particularly the soluble form, may help improve gut microbiome composition. This in turn may contribute to significantly better results from your nutrition program, leading to more muscle mass, reduced body fat and inhibition of anti-catabolic responses.

Bodybuilders should consume a minimum of 30 grams of fibre every day. When entering a cutting phase, focus on the consumption of prebiotics (especially soluble fibre), striving for a minimum of 50 grams per day. Good whole-food sources include lentils and beans, vegetables and fruit and nuts and seeds.

Diets high in fibre also slow digestion and reduce perceived hunger. Dieting bodybuilders who increase fibre consumption also gain these advantages while cutting body fat.

DEVON JAVIS





Coffee with sirloin

Coffee isn't just a drink. Rub your steak with it for a special kick that barely takes longer than brewing a cup by itself. BY SEAN HYSON

STEAK WITH COFFEE AND CHILLI RUB

YIELDS 2 SERVINGS

1½ tsp chilli powder

1½ tsp fine ground coffee

½ tsp brown sugar

14 tsp dry mustard

14 tsp ground cumin

¼ tsp salt

14 tsp freshly ground black pepper

500g top sirloin, about 3cm thick

1 cup white rice

% lime

½ cup fresh coriander, chopped

1 tbsp olive oil

1. Coat a large non-stick

frypan with cooking spray and place it over mediumhigh heat. In a small bowl, combine all ingredients for the rub and then coat steak well on both sides.

2. Cook steak 14 minutes. turning once, for medium to medium-rare. Allow steak to sit for 5 minutes before slicing.

3. While steak is cooking,

cook rice. Then stir in lime juice, coriander and oil, Add salt to taste. Serve steak with rice on the side.

NUTRITION PER SERVING		
616	72g	
CALORIES	PROTEIN	
29g	22g	
CARBS	FAT	



a crock! Keep high-nutrient sauces on hand to spice up your diet and

support gains.

WE DON'T THINK WE'RE going out on a limb by assuming that the majority of home-cooked dishes (and leftovers) you eat over the course of a typical week are uninspired and relatively tasteless. If you're looking to change that, an easy way to add life - and nutrients - to bland food is to whip up a couple of sauces in a crock-pot. You can keep them on hand and use them to complement vour main dishes.

BASIC VEGETABLE SAUCE

- 1. Chop or purée vegetables, depending on whether you prefer your sauces chunky or smooth.
- 2. Use enough vegetables so your crock-pot is about half to two-thirds full before cooking.
- 3. Add salt or olive oil for flavour and to help protect micronutrients.
- 4. Cook your sauce for about two hours on medium heat. Pour off liquid.
- 5. Refrigerate as much as you plan to use.
- 6. Freeze the rest in portions you'll use within a day or two. This will prevent spoilage of fresh vegetables.
- 7. Add these nutrient-dense sauces to egg, meat or grain dishes, creating much more nutrient variety.

GET SAUCED

Make changes based on the vegetables and spices vou like.

RED SAUCE

Red tomatoes, carrots, onions, red capsicum, yellow squash. SPICES Basil, oregano, garlic, cayenne pepper.

HIGH IN Lycopene, potassium, beta-carotene, and many others.

GREEN SAUCE

Broccoli, spinach, cauliflower, cabbage, Brussels sprouts, kale, bok choy, zucchini. SPICES Black pepper, dill, coriander, jalapeños. HIGH IN Vitamins C and K,

flavonoids, chromium, magnesium, folate and others.

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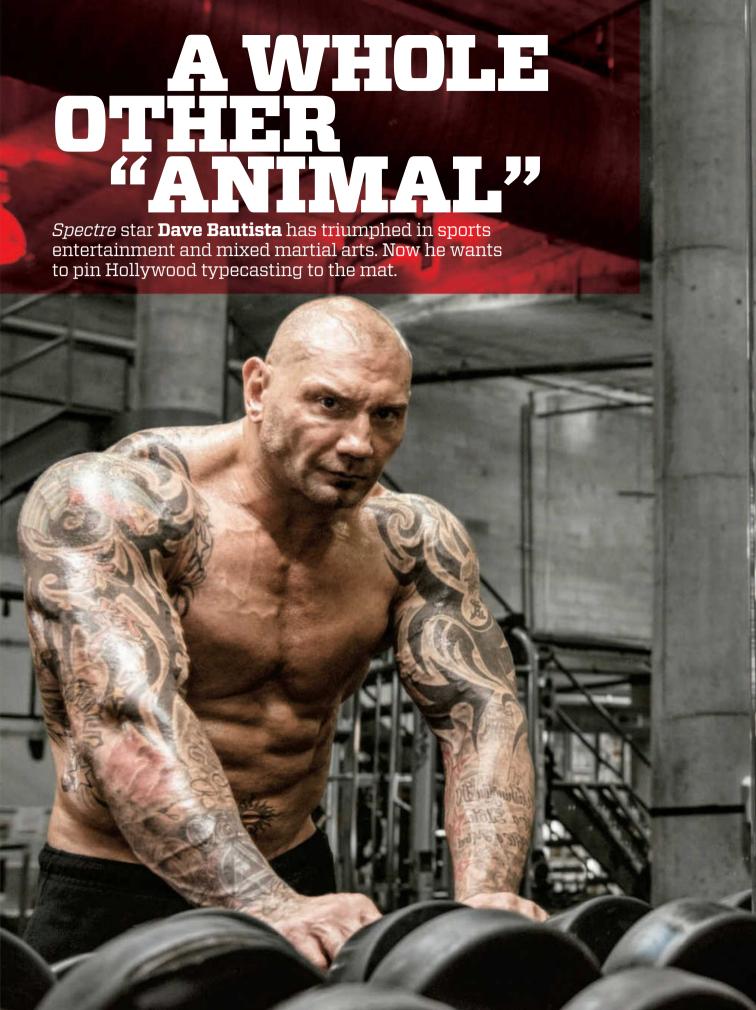


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AT 193CM & 120KG, DAVE BAUTISTA

seems like an unlikely choice to play Hamlet. The mural of tattoos down his barn-door-size back and the road map of veins running through his shoulders and arms suggest a dude who can benchpress more than four plates, win six world titles in WWE and beat a man into submission inside a mixed-martial-arts cage. And, of course, Bautista has done all of the above. But if you think the man known to sports-entertainment fans as "the Animal" can't put a beating on somebody and then entertain you with a sonnet, then you're selling Bautista short.

Don't do that again.

The villain of the new James Bond film, *Spectre*, now has movie stardom in his sights and a stage production of Shakespeare on his bucket list.

An unlikely thespian

It's especially funny to think of Bautista's long-term ambition in contrast to his humble upbringing, which was as far from puffy shirts, frilly necklines and Elizabethan English as one could get. Raised in a tough section of Washington in the US, Bautista sought protection through weight training. He bulked up to 168 kilos and worked as a bouncer until, at age 30, he decided to take a shot at sports entertainment. Despite a successful run in WWE, Bautista was unhappy with the direction the business was headed (away from the "Attitude Era" to a more family-friendly product) and, in 2010, left to pursue acting.

"I did some work on a film for a friend," he says, "and I realised what a horrible actor I was." The movie, Wrong Side of Town, was directed by one of Bautista's buddies, who thought he had the look to pull off the character of a Navy SEAL badass. "I was so embarrassed, but it made me want to do it again and do it better."

He hired an acting coach and hit the streets of Hollywood, eager to establish a full-time film career. "I had a lot of trouble when I started out acting because I'm very self-conscious and a naturally shy person. But [my coach] said, 'If you can do Shakespeare, you can do anything,' so we read scenes from *Measure for Measure* and *The Taming of the Shrew.* Stage acting in itself terrifies me, and Shakespeare's dialogue is so tricky. To me, doing it onstage would be the ultimate challenge."

The other challenge besides shyness, of course, was having the body of a mythic warrior, which didn't automatically suit him to Shakespearean roles or anything else – except generic tough-guy





Bautista plays henchman Mr Hinx in *Spectre*.



one," he says. "But at this point in my life and career, that makes absolutely no sense. I was more disappointed in myself because I was so nervous. I just kind of froze up. As soon as the cage door closed, I thought, 'What the fuck am I doing here?'" Nevertheless, he earned street cred with fans and haters alike, proving that he didn't need a story line to win a fight.

Guardian of his galaxy

It took years before Bautista found an agent. "The one I have now turned me down three times." he says. "And the reason he finally accepted me as a client was because he liked me as a person. And the reason he liked me was because he represented a friend of mine, [mixed-martial-arts fighter] Cung Le, and I got to know him through Le. He called me one day and said, 'I have an audition for you, and it's a real long shot', and that was Guardians. He was representing me for literally a week before I went in for Guardians."

In case the reference is lost on you (and if it is, where have you been hiding?), *Guardians of the Galaxy* was the nuclear box office explosion of mid 2014, earning more than \$774 million and garnering Bautista high praise from critics. He credits landing the lifechanging role of Drax to the casting director who believed in him and says he "clicked" with the director after the first audition.

and villain parts in B movies.

"There were a lot of roles that I turned down," Bautista says, "and I struggled for years because I didn't leave wrestling to get stuck in that rut of the cheesy action guy."

He made an earnest effort to shed some weight and look like a regular guy, but no dice. "I refused to pick up a weight for years and dieted and did cardio. I starved myself down to 250 [113.5kg]," he says with a laugh. That's as low as he could get without being perpetually hungry and miserable. "I'm just a big person with big bones, and I've been lifting for 25 years. I'm just a gorilla!"

If his physique wasn't enough of a handicap, his résumé made matters worse. Although WWE fans know full well that pro wrestlers can dissolve into character, that kind of acting didn't carry any weight in the movie business. The fact that he had already earned a

measure of fame through wrestling without having endured a formal education in theatre only served to breed resentment against him.

"I had to convince people that I was serious about acting and not just a wrestler who wanted to be in movies and be famous and make a lot of money," he says. "I've always been a fan of films. I watch all types of films, all across the board."

While Bautista waited for a big break, he briefly pursued another ambition – and a chance to break the stereotype of being a "fake" fighter. In 2012, he competed in a professional MMA fight. After a slow start that found him eating several big punches, he managed to take his opponent down and rain down strikes from back mount to earn a stoppage before the end of the first round.

"I was so disappointed in my first fight that I really wanted a second

"I sat jobless waiting for the phone to ring until Guardians came out," he says. "I think everybody expected me to be a certain way in it, and I was the opposite. That's when people started calling me." In contrast with most Marvel comic heroes who've come to the big screen, Bautista's Drax is genuinely funny, sensitive and vulnerable, showcasing the actor's own self-effacing personality.



I WAS SO **DISAPPOINTED IN MY FIRST FIGHT THAT I** WANTED A SECOND ONE... AS SOON AS THE CAGE DOOR CLOSED. I THOUGHT, WHAT THE **FUCK AM I DOING?**



Bautista vs. Bond

Bautista says the roles he's been offered since then are surprisingly varied and deep. Having shed the stigma of wrestler-turned-actor, he was confident he wouldn't have to play a thug again until he was offered a role in the latest installment of the James Bond series, Spectre (out Nov. 12).

"My agent called me and asked how I'd feel about being in a James Bond film, and my immediate reaction was, 'Fuck, yeah!' And he said, 'I figured, but I just wanted to double-check because it's a henchman role.' But I'm proud to say there are henchmen and then there are James Bond henchmen. The Bond ones are always iconic and memorable. And it's always more fun to be the bad guv. to be honest."

Of his role as Mr Hinx, Bautista says he's as deadly as any bad guy the series has ever produced but infused with Bautista's own brand of dry humour. "He doesn't take anything very seriously. He's kicking ass with a smile on his face. Nobody is a threat to him, so he doesn't follow any rules except his own. So what does he have to be pissed off about? Nothing. This is fun to him. He's playing a cat-andmouse game and enjoying it."

Interestingly, when he first spoke with director Sam Mendes about the part, Mendes asked him to gain weight up to 270 pounds (122.5kg) or more. No problem. "But when the costume designers came to fit me and I was about 270, they said, 'Please don't put any more weight on," he says, laughing. They were going to have a hard enough time fitting him as it was. Consequently, Bautista did little weight training during filming, opting mainly for body-weight squats and push-ups in his trailer and hotel room and boxing training when he could get to a gym. Bautista laughs at the question of whether he appears shirtless in the film, replying that Hinx is so well-dressed we'll never even see him suitless. But if you fear that Bautista has left his physicality behind in the ring, you'll be happy to know that there are enough high-voltage fight scenes in Spectre to rival anything he did at WrestleManias past.

"Daniel Craig punched me in the nose during a fight scene, and he thought he broke it. My nose was squirting blood everywhere, and I was like, 'No, man, it's all right.' We cleaned it up and kept shooting. Sam Mendes doesn't like to use doubles, so we did most of the stunts ourselves. It got very physical."

Perhaps best of all, Bautista says he had the respect of the cast and crew throughout the production (and not just because he could break them in half at will). Craig, who was familiar with Bautista from his work in Guardians. helped get him the part (at least that's what Bautista speculates), and he says he wasn't treated any





BAUTISTA ON...

"The Animal" talks about his acting peers, his lunch box collection and comparisons to The Rock.



CHRISTOPH WALTZ

[who plays Bond's chief nemesis in Spectre] "He's probably the most interesting actor I've ever watched work. He's almost hypnotic. You get wrapped up in the way he's delivering lines. But he's on his own time. The director would call action. and Waltz might wait a few minutes before one word came out of his mouth. You're sitting there waiting for it, but nobody's going to argue because when he speaks it's brilliant."



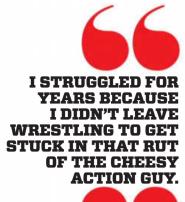
LUNCH BOXES

[Bautista collects vintage ones as a hobby.] "I got one three weeks ago, and it showed up crushed. It was a brandnew *Happy Days* lunch box from 1977. At least, it was new before the USPS got to it. I'm always adding to that collection. I recently got outbid for a 1954 Superman lunch box that ended up going for \$17.000."



DWAYNE "THE ROCK" JOHNSON

"He was a movie star before he was a movie star. You really feel it when he walks into a room. I'll never be him. We're just two guys with bald heads and muscles. Everything he does is larger than life, and everything I do is much more subtle. I can slip into a room without anybody noticing me. I don't think I'll ever command that much attention or as much money as he does [laughs]."



differently from the movie veterans.

Upcoming films will also find Bautista, 46, acting alongside Robert De Niro, Bruce Willis and Melissa McCarthy. He still hopes to return to WWE one day in the way Dwayne "The Rock" Johnson has done so sporadically, but Bautista has no immediate plans to rejoin it due to his packed filming schedule.

As for whether he is still too big for his britches - physiquewise - to be a leading man in movies, Bautista is far more concerned with doing good work in interesting roles than being No. 1 at the box office, and he vows to be true to himself above the needs of any director. He says that going the route of Christian Bale or 50 Cent and losing significant weight and muscle doesn't appeal to him.

"I don't know if I'm prepared or if it's even possible," he says. "I've gotten to where I was only eating protein and spinach all day and I was hungry all the time and I still couldn't really get myself to look like your average person. But I like training; I like being healthy. I don't want to be anorexic. If the role requires that, it's probably not the right role for me. I think resistance training will always be a part of my life. It's where I feel like I'm a fish back in water."





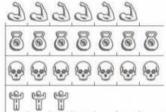




TOM HARDY

MOVIE: THE DARK KNIGHT RISES

Hardy clearly put in a lot of time with the iron to prepare for this role, and though he was a good bit smaller than Jeep Swenson's version of Bane in Batman and Robin, he made for a much better and scarier villain - even if you couldn't always understand everything he said. When Bane tunes up a pasthis-prime Dark Knight to close the opening act of the film - then hoists Batman over his head to break his back - his size helps make the scene believable.



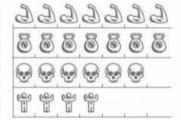


THE RUSSIAN

KEVIN NASH

MOVIE: THE PUNISHER

Nash's most memorable movie: 2004's The Punisher when he got one scene, no lines and an insane fight that just about stole the movie.



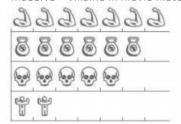


MARSELLUS WALLACE

VING RHAMES

MOVIE: PULP FICTION

When Bruce Willis' boxer doesn't take a dive for Marsellus Wallace, Ving Rhames' character becomes one of the scariest – and most massive - villains in movie history.



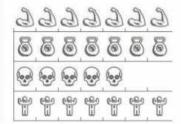


BRASS BODY

DAVE BAUTISTA

MOVIE: THE MAN WITH THE IRON FISTS

Bautista's Spectre villain might top Brass Body (watch the movie to find out), but in this kung fu flick, he's memorable as a master who turns to brass whenever he's struck.



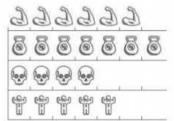


PAINE

STEVE AUSTIN

MOVIE: THE EXPENDABLES

When your character is named by a third grader (Paine?! Really?!), you'd better be tough enough to live it down. Luckily, Steve Austin is tough enough for just about anything.





KINGPIN

MICHAEL CLARKE DUNCAN

MOVIE: DAREDEVIL

Daredevil gets more than its share of hate but not for its casting of Kingpin, wonderfully played by the late Michael Clarke Duncan who intimidated as much with his frame as he did with his baritone voice.





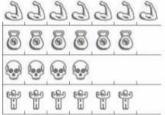
MR FREEZE

ARNOLD

SCHWARZENEGGER

MOVIE: BATMAN & ROBIN

Our executive editor always plays the hero, so it was "ice" to see him camp it up with a barrage of cold pun one-liners as Mr Freeze – the only redeeming quality for what is easily the worst big-budget comic book movie ever made. Other actors in the film, including George Clooney, publicly lamented doing it, but Schwarzenegger, never one to take himself too seriously, keeps his Mr Freeze costume on display in his home.







RICTUS ERECTUS

NATHAN JONES

MOVIE: MAD MAX: FURY ROAD

A lack of smarts is made up for with a massive build and awesome strength and power. Aussie wrestler/actor Jones admits he had "a few close shaves" when doing his own stunts on the film. Respect.



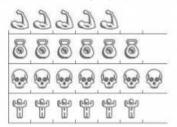


SIMON PHOENIX

WESLEY SNIPES

MOVIE: **DEMOLITION MAN**

When Snipes' murderous character is unfrozen in a future that can't handle him, he wreaks havoc on an entire city and has a blast while he does it. And with those arms, it's more like Wesley Pipes, amirite?



VILLAIN RATING









Our highly unscientific method for measuring badassery



Build groundbreaking strength and shirt-busting size with this 12-week training, nutrition and supplement plan

Every so often, the right training program meets the right diet and the right supplement regimen. When this happens, the individual who follows all three phases as prescribed achieves the desired goal: more muscle, more strength and a greater capacity to make even more progress in these areas.

We believe we've found such a program right here - one that's backed by science, specifically a recent University of Tampa, US, study, where considerable gains in strength and size were achieved by subjects following this program. The training portion consists of hard-hitting workouts centred around foundational exercises, with a high-protein diet to support the hard work.

The supplement regimen, which will fill all holes in the diet and ensure optimal

recovery from the intense lifting sessions, comes directly from MuscleTech. one of the leading sports nutrition companies in the world and makers of the brand new Clear Muscle supplement (so named because it's a see-through capsule, the first of its kind), a free acid derivative of HMB called BetaTOR.

In just three months,

the synergy between the training, food and MuscleTech products is sure to produce the namesake of this program: Clear Results. Results you'll see in the mirror with increased muscle mass, and results you'll feel in the gym when heavy sets of squats, bench and all other exercises feel considerably lighter than they used to.

CLEAR RESULTS TRAINING PROGRAM

For all workouts, take the following supplements:

1 scoop Platinum 100% Whey

+ 2 capsules Clear Muscle

50g fast-absorbing carbs (sucrose/dextrose)

1 scoop Platinum 100% Whev







CLEAR PROOF

The University of Tampa experiment was a doubleblind, placebo- and dietcontrolled intervention study in which Phase 1 (eight weeks) was a non-linear periodised resistancetraining program: Phase 2 (two weeks) was an overreaching cycle: and Phase 3 (two weeks) was a taper. The results the subjects experienced, which were subsequently published in the European Journal of Applied Physiology, were downright impressive.

Twenty-four welltrained males participated
in the study and were
separated into two different
supplementation groups:
those who took BetaTOR
(generically called "HMB
free acid" in the published
study) in the exact
same dose found in the
MuscleTech Clear Muscle
formula; and those who
took a placebo instead.
At the end of the 12-week

program, the BetaTOR group showed average increases in strength of 16 kilos on the squat, 12.5 kilos on bench, and 28 kilos on the deadlift, compared to 7, 3.5 and 14 kilos respectively, for the placebo group. The BetaTOR group also showed significantly greater increases in power (as measured by the Wingate peak power and vertical leap tests) versus the placebo group. For all strength and power

metrics, gains were made over the entire course of 12 weeks for the BetaTOR group, with increases shown at four, eight and 12 weeks; in the placebo group, strength actually decreased in the bench and squat in the last four weeks, and was virtually unchanged in the deadlift over that same period.

Perhaps most impressive were the enhancements made in body composition. At the end of 12 weeks, the BetaTOR-supplementing





In a ground breaking clinical study, the key ingredient in Platinum 100% Whey helped test subjects build 2.3 kilos of lean muscle and add 6.3 kilos to their bench press.

NEW MUSCLETECH CLEAR MUSCLE™ works to help build lean muscle, strength and power with PERFORMANCESERIES heavy resistence training. THE CLEAR PILL THAT HELPS BUILD LEAN MUSCLE* **CONTAINS BetaTOR LEAN MUSCLE &** STRENGTH BUILDER UST L 232737 DOWNLOAD THE FREE CLEAR MUSCLE™ 12-week training program: international.muscletech.com/trainhard

Proper nutrition and regular training are essential to achieving your fitness and bodybuilding goals. ALWAYS READ THE LABEL. USE ONLY AS DIRECTED. © 2015

CHC70522-06/15

* with heavy resistance exercise



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CHALLENGE

individuals gained, on average, 7 kilos of lean body mass (pure muscle) while losing nearly 5.5 kilos of body fat, versus just two kilos of muscle gained and 1.5 kilos of fat lost for the placebo group. In the supplemented group, that's only a net gain of 1.8 kilos of body weight - which may look insignificant on the bathroom scale, but represents a drastic change in body composition that will be readily apparent in the mirror.

The Clear Results training program laid out in this issue (Phases 1 and 2) as well as in the upcoming issue (Phase 3) is the exact protocol followed by the University of Tampa subjects. Follow it to the letter along with the recommended diet and supplement regimens (specifically the Clear Muscle products), and you can expect to see results similar to those found in the Tampa study.

During Phase 1, you'll train three days a week (Monday, Wednesday and Friday), doing bench presses, squat and deadlifts in each of those workouts, followed by assistance work on Monday and Friday.

In Phase 2, training frequency is ramped up, as you'll be lifting all five days during the week, hitting the big three lifts in each of those workouts and assistance work on all days except Friday.

Training the same lifts - bench, squats, deads five days in a row? Yes. which is why they call it "overreaching" - because it's more frequency than you'd normally do in your training as you push yourself for greater gains. But with only three sets of each exercise per workout, total volume is kept at an optimal level. Not to mention, Clear Muscle, in addition to proper food intake, will ensure adequate recovery, thus allowing the overreaching phase to be effective. The Tampa researchers concluded that BetaTOR supplementation "enhances hypertrophy, strength and power following chronic resistance training, and prevents decrements in performance following the overreaching." [22]





CHALLENGE

PHASE 1 WEEKS 1-8

MONDAY			
EXERCISE	SETS	REPS	REST
Squat	3	8-12	1 min
Bench press	3	8-12	1 min
Deadlift	3	8-12	1 min
Pull-up superset with	3	8-12	-
Dip	3	8-12	1 min
Barbell bentover row	3	8-12	1 min
Dumbbell shoulder press	3	8-12	1 min
Barbell Curl superset with	3	8-12	-
Lying triceps extension	3	8-12	1 min

WEDINESDAY			
EXERCISE	SETS	REPS	REST
Squat	5	5*	2½ min
Bench press	5	5*	2½ min
Deadlift	5	5*	2½ min

^{*}Maximal intended velocity reps, using a relatively light weight and performing each rep as explosively as possible



Note: for each exercise in this workout you'll do three maximal attempts at a TRM following a proper warm-up and progressing to heavy weight. Count the heaviest weight completed as your 1RM for that exercise.







The slow-digesting properties of casein protein may have an anti-catabolic effect and prevent muscle protein breakdown.





MONDAY				
EXERCISE	SETS	REPS	REST	LOAD
Squat	3	8	1 min	75% 1RM
Bench press	3	8	1 min	75% 1RM
Deadlift	3	8	1 min	75% 1RM
Pullup superset with	3	8	-	75% 1RM
Dip	3	8	1 min	75% 1RM
Barbell bentover row	3	8	1 min	75% 1RM
Dumbbell shoulder press	3	8	1 min	75% 1RM
Barbell curl superset with	3	8	-	75% 1RM
Lying triceps extension	3	8	1 min	75% 1RM

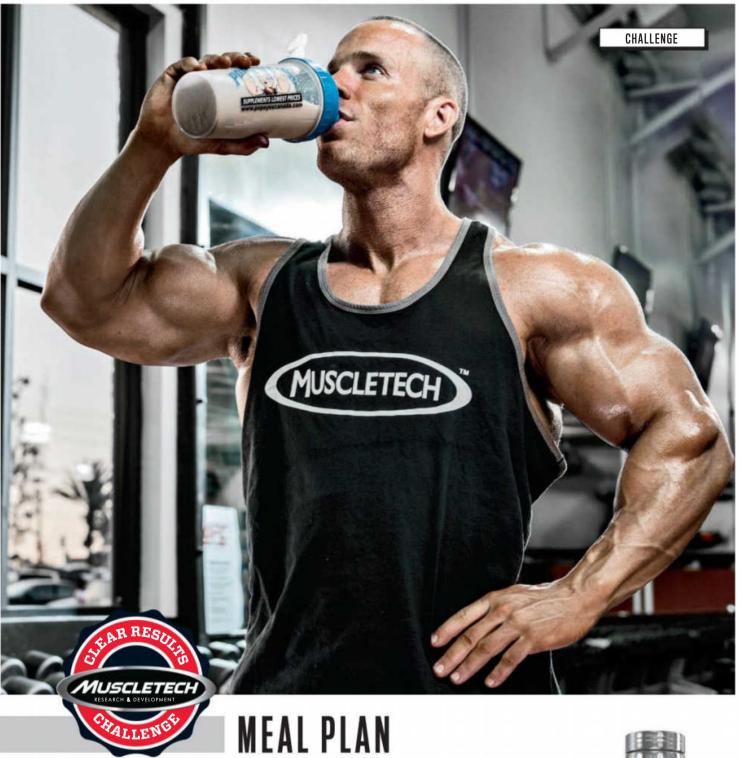
TUESDAY		11		
EXERCISE	SETS	REPS	REST	LOAD
Leg press	3	8	1 min	75% 1RM
Bench press	3	8	1 min	75% 1RM
Military press	3	8	1 min	75% 1RM
Supinated pull-up superset with	3	8	-	75% 1RM
Dip	3	8	1 min	75% 1RM
Barbell bentover row	3	8	1 min	75% 1RM
Hammer curl superset with	3	8	-	75% 1RM
Close-grip bench press	3	8	1 min	75% 1RM

WEDNESDAY				
EXERCISE	SETS	REPS	REST	LOAD
Squat	3	12	1 min	65% 1RM
Bench press	3	12	1 min	65% 1RM
Deadlift	3	12	1 min	65% 1RM
Pullup superset with	3	12	-	65% 1RM
Dip	3	12	1 min	65% 1RM
Barbell bentover row	3	12	1 min	65% 1RM
Dumbbell shoulder press	3	12	1 min	65% 1RM
Barbell curl superset with	3	12	-	65% 1RM
Lying triceps extension	3	12	1 min	65% 1RM



THURSDAY				
EXERCISE	SETS	REPS	REST	LOAD
Leg press	3	12	1 min	65% 1RM
Bench press	3	12	1 min	65% 1RM
Military press	3	12	1 min	65% 1RM
Supinated pull-up superset with	3	12	-	65% 1RM
Dip	3	12	1 min	65% 1RM
Barbell bentover row	3	12	1 min	65% 1RM
Hammer curl superset with	3	12	-	65% 1RM
Close-grip bench press	3	12	1 min	65% 1RM
FRIDAY				
EXERCISE	SETS	REPS	REST	LOAD
Squat	3	1	5 min	1RM
Bench press	3	1	5 min	1RM
Deadlift	3	1	5 min	1RM

Note: for each exercise in this workout, you'll do three maximal attempts at a 1RM following a proper warm-up and progressing to heavy weight. Count the heaviest weight completed as your 1RM for that exercise.



The nutritional aspect of the Clear Results program supports all the intense lifting you're doing in the gym through a combination of a wholesome, proteinrich diet and premium quality MuscleTech supplements. All the muscle tissue you'll break down in your training will be regenerated and built back up, only bigger and

stronger, with the following sports nutrition regimen.

There are two sample meal plans listed: one you'll follow on training days, the other you'll adhere to on rest days.

This program was written with a muscular, 90-kilo male in mind, but it can be adjusted to work for anyone. To tailor the program to suit your individual size, simply

divide your body weight in pounds by 200, then multiply that number against the listed macros to obtain the proper numbers for you.

For example, let's say you weigh 150 pounds – 150 divided by 200 equals 0.75, so you'll multiply 0.75 by the daily totals listed for protein, carbohydrates, fat and calories to find your correct macronutrient numbers.



Take two capsules of Clear Muscle three times a day; on training days, take one of these two-capsule servings pre-workout.

TRAINING DAY MEAL PLAN

	Calories	Protein	Carbs	Fat
MEAL1				
1 scoop Platinum 100% Whey	130	24	4	1.5
3 organic free-range eggs	194	18	0	14
1 tbsp virgin coconut oil (to coat pan)	126	0	0	14
1 cup quinoa, cooked	222	8	40	4
Meal total:	672	50	44	33.5
MEAL 2	W .			
225g turkey or chicken	342	66	0	7
1 cup spinach (or any green vegie)	41	1	7	.5
225g red baked potatoes	202	7	40	0
Meal total:	585	74	47	7.5
MEAL 3				
225g lean red meat	421	67	0	14
Salad with 2 tbsp extra virgin olive oil	252	1	2	28
Meal total:	673	68	2	42

	Calories	Protein	Carbs	Fat
MEAL 4/PRE-WORKOUT				
1 scoop Platinum 100% Whey	130	24	4	1.5
2 tbsp peanut butter	208	10	6	16
2 capsules Clear Muscle*	-	-	-	-
Meal total:	338	34	10	17.5
INTRA-WORKOUT SHAKE				
50g fast-absorbing carbs (sucrose/dextrose)	200	0	50	0
Meal total:	200	0	50	0
MEAL 5/POST-WORKOUT				
1 scoop Platinum 100% Whey	130	24	4	1.5
225g turkey or chicken	342	66	0	7
2 cups white rice, cooked	328	8	74	0
1 tbsp raw honey	68	0	17	0
Meal total:	868	98	95	8.5
MEAL 6				
2 scoops Platinum 100% Casein	220	48	4	2
2 tbsp peanut butter	208	10	6	16
Meal total:	428	58	10	18
DAILY TOTAL:	3,764	382	258	127

NON-TRAINING DAY* MEAL PLAN

	Calories	Protein	Carbs	Fat
MEAL 1				
1 scoop Platinum 100% Whey	130	24	4	1.5
6 organic free-range eggs	387	36	0	27
1 tbsp virgin coconut oil (to coat pan)	126	0	0	14
1 cup spinach (or any green vegie)	41	1	7	.5
½ cup oats (dry measure)	155	5	27	3
1 cup strawberries (or other berries)	46	1	0	0
Meal total:	885	67	38	46

MEAL 2	2		00	
2 scoops Platinum 100% Whey	260	48	8	3
2 tbsp peanut butter	208	10	6	16
Meal total:	468	58	14	19



* Take Clear Muscle three times daily, two capsules each time; on training days, take one of your two-capsule servings pre-workout.

	Calories	Protein	Carbs	Fat
MEAL 3				
225g lean red meat	421	67	0	14
1 cup spinach (or any green veggie)	41	1	7	.5
1 cup black beans	233	14	42	1
Meal total:	695	82	49	15.5
MEAL 4				
2 scoops Platinum 100% Whey	260	48	8	3
2 tbsp peanut butter	208	10	6	16
Meal total:	468	58	14	19
MEAL 5				
225g turkey or chicken	342	66	0	7
1 cup white rice, cooked	164	4	37	0
Salad with 2 tbsp extra virgin olive oil	252	1	2	28
Meal total:	758	71	39	35
MEAL 6	*			×.
2 scoops Platinum 100% Casein	220	48	4	2
Meal total:	220	48	4	2
DAILY TOTAL:	3,494	384	158	136.5

PHASE 3 (WEEKS 11 AND 12) OF THE CLEAR RESULTS PROGRAM WILL APPEAR IN THE NEXT ISSUE OF M&F



200MC CREEN COFFEE

Effective key ingredient that can help support overall weight loss

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All ingredient amounts above are per 2 Hydroxycut Hardcore Elite capsules.

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1"Elite Level" refers to representation of brand name and not level of weight loss.

*Results may vary with duration and intensity of training program. Image shown does not represent typical user. Combine with a calorie-controlled diet. Available from leading health food stores and pharmacies everywhere.

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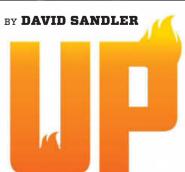




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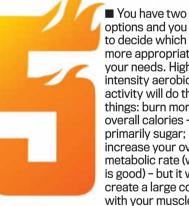


■ Your body responds to carbs acutely (very quickly) and then chronically (over time) and those processes are both critical for timing your look, but also for metabolic issues.

The acute response is what you want for your physique to get ripped and hard. The chronic adaptation is what can crush your metabolism into a hibernation that would make a bear take a second look. Keep your carbs constant, and keep them relatively high (not less than 40% of your total macros). In fact, if you can train your body to work with 55-60% carbs, vou'll have rock-star shredding capabilities in the long run. The trick is to teach your body how to use carbs, so when you do cut or load, the acute response is all that happens. When you chronically starve your body of needed carbs. it will go in to storage mode, and turn just about everything you eat into fat. Additionally, water will accumulate, even with low carbs, causing swelling between the lines, making you look flat. Once you're seriously carb-depleted, it's hard to deplete any more. While true, when you go to load you may get lucky and time it perfectly and look ripped, but the effect doesn't last long, so if you're off by even an hour or two, you won't look so good. The cure is to eat carbs at every meal and keep them as constant as possible so your body knows it'll always have them to deal with.



NOW YOUR "CARDIO"BALANCE



options and you need to decide which is more appropriate for vour needs. Highintensity aerobic activity will do three things: burn more overall calories - but primarily sugar; increase your overall metabolic rate (which is good) - but it will create a large conflict with your muscle-

gaining ability as it becomes somewhat catabolic to muscle tissue. Option 2 is lowintensity aerobic activity, which, while great for mobilising fat - making it the primary choice of fuel - it doesn't help with other aspects of pushing the metabolic threshold and improving your overall rate.

Both training methods are needed, and neither should be discounted. While advocates of a particular method would tell you the other is bad, I suggest a more thorough approach that boosts metabolism but prevents catabolic muscle exposure. To keep your fat stores at bay, choose the

low and the slow more often. When that's combined with heavy-duty, muscle-building lifting, it won't interfere with the building process and will help burn off the real fat. The high-intensity stuff should be reserved for the times during a regular training cycle of trying to lean out, but also done in short bouts so as not to confuse your body with which fuels to use. In other words, short bouts of hardcore sprints tells your body that the increased muscle provides more power and strength for those sprints. Chronic beating up of your body in highintensity efforts tells your body that it needs to lighten the load to become more efficient, and hence, it starts to attack the muscle. To make the most of high-intensity training, do it once per week, no more than twice, and keep it short (under 30 minutes). But most importantly, you need to understand that cardio is not for creating a calorie deficit - that's why you diet. Instead use varying cardio to boost your metabolism by getting fats and sugars moving, to keep the body used to burning, and to provide the needed exercise rush to drive your metabolism. Don't overdo it, instead, "underdo" it, so your body wants more and learns to process fuels more efficiently.



BUILD THICKER, MORE DENSE MUSCLE

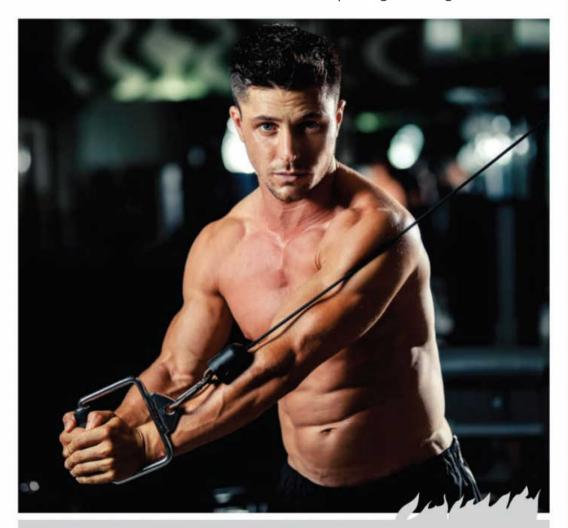
■ Dense muscles increase metabolic rate and burn more calories - there's no argument against that. I realise telling an experienced bodybuilder that he needs thicker muscles is a bit of a no-brainer. But while bodybuilders are certainly large in girth due to the normal processes of hypertrophy (increasing size), there is still considerable inactive material, since muscle is comprised mostly of water, which doesn't have metabolic activity. It is to that end that increasing the contractile protein thickness within the muscle is a must to help elevate your metabolic threshold. Research clearly indicates that strength training with lower reps and higher weight will improve the overall thickness of the contractile elements of muscle. Thus, adding a few strength phases within your long-term hypertrophy program is a must. About every 3-4 months, it's advised to hit a month of old-school strength training where you do 4-5 sets of six reps with as heavy a weight as you can handle. Tough it out, get stronger and watch your metabolic rate soar.





INCREASE YOUR TRAINING TEMPO

■ While strength is dictated by heavy sets and longer rest schemes, and size is generally categorised by a slightly quicker pace and higher rep range, by keeping your workouts constant at either end of the spectrum, you create normalcy. Remember, metabolism likes normalcy, so it can slow down and relax. To prevent your metabolism from winning the battle, changing up the tempo midstream during a workout or alternating pace every other workout can be an effective tool to help overcome the staleness. You don't want to do this haphazardly nor too often, as you don't want to vary too far from your main goal. So add a fast-paced component to your routine every third or fourth workouts in one of these two ways. One, drop your rest time down to 30-45 seconds for a few sets of each exercise. Two, pick up the pace of the reps and try to hit 12 reps in 10 seconds. Be careful with the second option, as you still need to control the weights. By moving a little quicker, you get a metabolic effect that is similar to a supercharger on an engine.



WHEN YOU CHRONICALLY STARVE YOUR BODY OF NEEDED CARBS, IT WILL GO INTO STORAGE MODE, AND TURN JUST ABOUT EVERYTHING YOU CONSUME INTO SUBCUTANEOUS FAT.



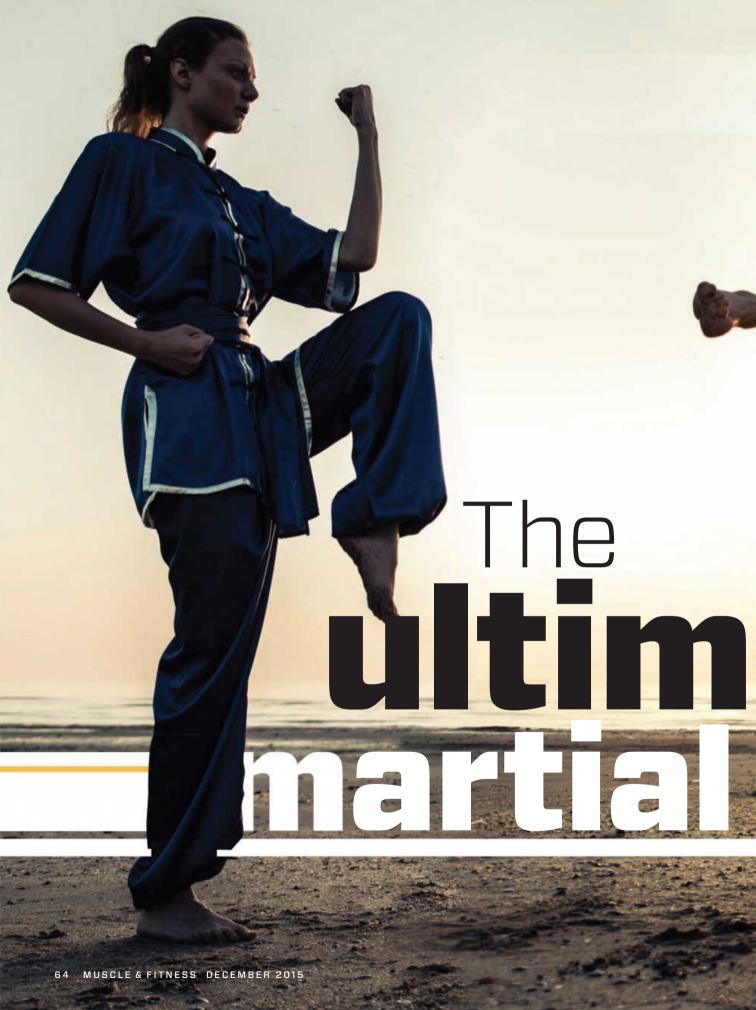
■ Spicy foods have been proven time again to help accelerate metabolism primarily due to the capsaicin in the spices, so throw in a little extra heat. Lean proteins, especially fish, seem to have a potential for boosting metabolism over regular consumption. Make some kind of fish a regular part of your diet. Citrus fruits carry natural components like synephrine and naringin, which have been shown to mobilize fat. accelerate metabolism, and even help with appetite suppression, Kick up the fruit in your diet and help your metabolism get back on track. Cruciferous veg (like broccoli and cauliflower) have powerful antioxidant and anti-inflammatory responses that may improve your metabolic profile. The downside is that those same vegetables can cause gas and stomach discomfort, so don't overdo it. Of course, a food discussion with respect to metabolism shouldn't forget that eating smaller meals more often and staying away from junk foods that high are fat and sugar should both be a must. Overall, your diet will affect your metabolic rate as well as your waistline.



■ It's been well established that supplements can up your game in almost every aspect when it comes to building muscle. The same is true with improving metabolic rate. Besides the standard protein, amino acids and creatine that should accompany your workouts, there are a few other things you may want to consider during those tough times when the diet becomes highly restricted. Caffeine, in tolerable doses up to about 300mg, is a staple in most fat burners because it works. Green tea extract, both with caffeine or without, carries a high level of EGCG, which has shown to be very effective at helping mobilise fat, improve weight loss and carry powerful antioxidant aspects, making it a good choice for fat burning. Shoot for 150mg or more per day to get a solid benefit. There are many herbs that claim to have

benefits at increasing metabolism through various mechanisms, but many are still under investigation. Several of the natural diuretic products on the market not only help decrease your water, but also carry extracts that promote increased metabolic firing. But perhaps the most important thing you can do when it comes to supplements is give your body help with building muscle through muscle protein synthesis. This is best achieved by providing ample amounts of protein, amino acids or bioactive peptides to your postworkout drink. Missing this component of your training will cause you to lose out on valuable recovery and building components that will affect your ability to build solid muscle and thus they will decrease your ability to improve your metabolism.







he ever-popular Olympic sport of tae kwon do (TKD) - translation: "the way of the foot and fist" requires the agility of a gymnast, the accuracy of a marksman, an instinctive ability to react with split-second timing and enough stamina and strength to continuously deliver hard strikes for three two-minute rounds.

A strategic sport that's often likened to chess (albeit a bit more painful) TKD combines blistering speed, quick thinking, evasion and elusiveness and complete control over both body and mind. Of the many qualities required to become successful with foot and fist, it's speed and agility aided by superior aerobic fitness that many consider the most decisive attributes when kicking it on the mat. Moving fast, changing angles, striking and counter-striking with precision and expert timing - with great vigour from bell to bell – provide a sure path to victory. Muscle-building your way to gold in the TKD arena is about as pointless as a powerlifter prioritising cable crossovers when aiming to build a big bench. Indeed, the biggest and strongest seldom reign supreme in a game where lightness of foot and cardiovascular conditioning are of fundamental importance.

POWER IN THEORY

Originating in Korea in 1946, TKD is widely regarded as the most accessible martial art practised today. Suitable for all ages and sizes, TKD has something for everyone. Whether self-defence, skill development, fitness training, confidence building or, for those with the requisite

fighting spirit, competition, all can be pursued one roundhouse – or Dollyo Chagi - kick at a time.

A tenet-based system for selfimprovement - of which punching and kicking an opponent is one small part - the TKD ethos emphasises respectful conduct and the cultivation of desirable human attributes. From white belt (beginner level) to black and through the various dans, each of which marks a specific degree of proficiency (first dan black belt, second dan black, etc), TKD's philosophical underpinnings of courtesy, integrity, perseverance. patience, self-discipline and invincibility of spirit remain a guiding foundation for all TKD practitioners.

It's from this enlightened base of instruction that formidable fighting technique is established, which brings us back to the importance of speed and agility. These defining characteristics of tae kwon do are fully developed only when concentrated effort and excellence in execution are at their highest. A Theory of Power, based on biomechanical laws and Newtonian physics, was developed by the founder of major international TKD organisational body, the International Tae Kwon Do Federation (ITF), General Choi Hong Hi, to express the importance of speed over size when striking with power.

The six Theory of Power components - the controlling of breath (exhale when striking), speed of execution, mass (using as much of the body as possible when delivering a blow), reaction force (where the non-striking limb is snapped back to lend more force to the striking limb) and equilibrium (a correct centre of balance) - are, according to Choi, essential prerequisites for all serious TKD students.

FIGHTING FIT

Separate from TKD's serious pursuers of punching power are many more adherents who adopt TKD purely for its fitness benefits. In fact, for building both flexibility and fitness and for developing furiously fast feet and hands. TKD could be the ultimate art. However, once hooked, many TKD devotees soon find themselves competing against like-minded adversaries. It's at this point that fitness is kicked up several notches and, yes, speed and agility become allencompassing.

Transforming a novice TKD competitor into a high performance athlete takes strength and power development, conditioning, speed, mobility, prehab/rehab, nutrition/ hydration, recovery/regeneration and training load monitoring. According to Christian Woodford, head coach at WSSC (Woodford Sport Science Consulting), achieving TKD excellence requires nervous system strengthening, perfect exercise execution, explosive movements, strength building and muscle hypertrophy.

"You can't build a house without a foundation and this is true in regards to athletic development for TKD," says Woodford. "All my athletes,





regardless of their training history and sport, must show me they are movement-competent via the primal strength patterns and their respective movements: Romanian deadlifts, squats, deadlifts, push-ups, inverted rows, chin-ups and overhead presses."

In pursuing a sport that requires the combined effectiveness of all fitness components, the TKD exponent must be as physically well-rounded as any athlete. "My biggest assessment tool for an athlete's performance is information gathered from his coach and feedback from the athlete," says Woodford. "This is where I like to give the power to the athlete and supply them with the appropriate knowledge to understand their body better."

Building an elite TKD athlete also involves the precise integration of intensive training balanced with complete rest. Woodford explains: "A TKD athlete can train all they want, but if they don't recover they won't get bigger, stronger or faster."

Besides rest and nutrition, Woodford considers an emphasis on correct breathing to be essential for the rebuilding process.

"Parasympathetic deep belly breathing switches my athletes from being jacked up post-training to a state of rest and optimal digestion," he says.

Woodford believes that athletic development for TKD athletes largely depends on developing strength and power along with the conditioning needed to recover between rounds. "An athlete can have all the strength and power in the world, but if he lacks conditioning, his performance will decrease as the duration of the fight increases," he says. "I see many athletes with great strength and power, but who lack the conditioning to hold their technique."

Woodford also believes in keeping an athlete's training as specific as possible, so no time is wasted when preparing them for success. "The main principal I use is specificity and individualisation, where training is specific to the individual's sport. I am also a big believer in developing sport-specific conditioning through the skill itself. This is where the athlete will develop the specific muscle groups, motor patterns and metabolic pathways involved in the sport."

RISING STAR

A local Tae Kwon Do exhibition was all it took for five-year-old Bailey Lewis to become hooked into the Tae kwon do WTF junior teams match Russia vs Iran during the martial arts festival Baltic Sea Cup in Sibur Arena in October 2015. Iran won the match.

way of the foot and fist – a decision that has led to him becoming one of Australia's leading TKD athletes. A 2014 Oceania and Commonwealth Championships gold medalist and multiple Australian National Championships winner, Lewis who competes under the auspices of the other major TKD organisation, the World Tae Kwon Do Federation - plans to represent Australia at the 2020 Olympic Games. To have reached excellence on the TKD mats, Lewis, now 17, has continuously sought to improve his weaknesses under the tutelage of his coach Frank De Pasquale.

Ranked 54th in the world in his fin weight (-54kg) division, Lewis has recently been focusing on building greater strength to further empower his kicks and punches. With more advanced competition, explosive striking has for Lewis become ever-more important; the Victoria-based phenom is using his increased power to become a fighting force on both the domestic and international TKD circuit.

"Employing a reputable

TAE KWON DO





Rising tae kwon do champion Bailey Lewis in training (left) and in fight mode (above).

performance coach has also helped me a huge amount to improve things as simple as basic motor skills through to the efficiency of my movements, from the way I'm able to counter a movement or react explosively to different situations," says Lewis, a member of the City West Tae Kwon Do club in Victoria. "In the last two years I've seen massive improvements in my movements and my performances in the ring have been stunning."

Central to bolstering his power to perform has been an emphasis on post-fight recovery, an adjustment of training load to improve rest and rebuilding, and balanced nutrition. To become an Olympic-calibre athlete requires not only elite-level technical guidance, but also critical foundation-building strength and conditioning support. For the past two years, Lewis has been receiving strength and conditioning instruction from respected performance coach Woodford.

"Like most 16-vear-olds that come to the performance centre, Bailey lacked motor control, moved inefficiently, was inactive through his glutes - the powerhouse muscles - and was immobile," says Woodford. "My passion and drive has always been athletic performance enhancement and how it is possible to create a physiological adaptation based on how an athlete trains. Lewis was a strong TKD athlete but lacked the physical development to aid him in expressing his skill at a high level. My main goal is to enhance Lewis's physiological capacities and enhance his neural efficiency, so when these integrate with his TKD skills he can execute at a higher level."

In acknowledging the importance of TKD's required competitive skills, Lewis ranks agility and fitness

as keys to his success. "I believe agility is the most important fitness component for ensuring optimal TKD performance," he says. "We need to move around the ring all the time, so fitness plays a big part."

Not one for suffering the debilitating nervousness that often hampers the performance of many an otherwise athletically-sound competitor, before each big event Lewis quietly contemplates the task ahead, secure in the knowledge that he is both mentally and physically prepared for battle.

"Psyching up before a comp is not something many would see besides my coach," he says. "I simply listen to my coach and we review our game plan and discuss tactics that we have determined will help me win."

Success for Lewis means travelling the world and taking on all comers. It's what drives him to continue his ascent through the TKD rankings. "I am always looking to improve my performance," he says. "Every day I am striving to achieve more."

NEW TECHNOLOGY I T





UltraVision Lens



Ultra Violet Protection



Soft Frame



Anti-fog Injection



Quick Fit Strap Adjustment



CLEAR Lens











Keep your cool while keeping fit this summer

It's always a good idea to shake up your training, and this time of year is perfect for trying something new. Hot days and blue skies make the great outdoors irresistible, and our cities' sparkling waterways are beckoning. Whether you're looking to boost your fitness, want to spice up a dull exercise regime or are keen for a new challenge, water sports tick all your training boxes. Whichever style you choose, you'll get a demanding cardio workout that also hits all your muscles. You'll learn new skills, push new boundaries and have a shedload of fun. We take a look at some of the country's biggest water sports. Give one of them a go this season.

Many Aussie blokes grow up in the surf, but for the average fit bloke who's never been on a board, how hard is it to learn how to surf?

"It comes down to coordination, flexibility, paddle fitness, knowing your equipment and wave knowledge," says Ethan Smith from Surfing NSW. "But, no matter how fit you are, it can still be quite difficult as Mother Nature can be erratic."

While good balance, upper body strength and a strong core will all help the new surfer, Smith says you also need a good knowledge of surf conditions and the right equipment.

"You need a board that's wide, thick and long enough that'll allow you to get into a wave early enough that you can already be standing up by the time the wave begins to hit shallow sand/reef/rock," he says. "More importantly, it's best that beginners find smaller, easy, rolling waves that'll give them plenty of time to figure out what's going on – away from the other surfers battling it out to catch waves."

Learning to surf requires a lot of practice. And Smith suggests that a few lessons wouldn't go astray, either. "It all depends on what level you really want to achieve. All levels of surfing have lessons and coaching available – from the beginner, right up to World Champions.

"There's no room for excessive pride or selfconfidence when beginning to surf; you're going to cop some beatings. A few lessons will speed up the learning process and keep you out of harm's way."

To find the right instructor, head to your nearest beach. Most major city beaches have surf schools located on their shores. A comprehensive list of surf schools can also be found at sasurfschools.com.au.

The beginner should also know that there's a certain etiquette involved when you're out there sharing the waves with other surfers. To avoid pissing off the wrong people and making new enemies, Smith suggests the below.

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DON'T DROP IN The person closest to the breaking wave has the right to ride it. Wait your turn in the line-up. (As a beginner, avoid the line-up until you're confident you can do controlled takeoffs). Don't catch a wave and then turn straight back around.

PADDLE WIDE Don't paddle out to the line-up through the impact zone (where waves are breaking and people are surfing) or where others are waiting to catch a wave. When paddling out, a surfer riding the wave always has right of way.

COMMUNICATE When catching a wave let others know which way you're going. Don't verbally abuse other surfers.

DON'T THROW YOUR BOARD It could seriously injure someone. Hang on to your board. Learn to duck dive to get under waves. Make sure your leg rope is intact.

RESPECT THE BEACH, THE OCEAN AND OTHERSDo your bit to keep the beach and ocean clean.

FREEDIVING

While scuba diving is a fun way to check out life under the sea, freediving offers the same benefits with the added challenge of holding your breath rather than relying on a breathing apparatus.

"Freediving is another term for apnea diving, and is used to describe a whole range of sports such as spearfishing, snorkelling and competitive freediving," says Jody Fisher from the Australian Freediving Association. "It's a great way to enjoy the ocean without artifice – a natural way to observe and interact with the marine environment. There's no need for scuba tanks or dealing with loads of equipment, plus, most marine animals are scared away by bubbles, so freedivers are often able to see more."

According to Fisher, as long as you're generally healthy you should be able to give freediving a go. "It's low impact,

Just like any activity, there are risks involved, but according to Fisher, if you follow basic safety rules and are sensible it can be very safe. "A lot safer than many 'normal' sports," she says." When I first heard about freediving I didn't imagine that I would ever compete. But after I did some research I realised that as long as I applied common sense, I'd be safer than when driving to the pool."

While you would assume that the most important things for freediving would be lung capacity and fitness, it's actually the "dive response" that is key for freediving performance.

"The dive response is a group of reflexes we have that protect us and help conserve oxygen when we're holding our breath underwater," Fisher explains. "It can also be trained, which is why elite divers are able to achieve

such large performances."

When starting out with freediving, if you're taught well you should see big improvements fairly quickly. Find your local freediving club and ask for their best instructor.

"People should do a freediving course if they're interested in breath-hold diving, so they don't make the common beginner mistakes

that slow down progress," Fisher says."Most important, you learn how to stay safe!"

Initially, your biggest hurdle will be a psychological one. You'll also need to master technique. Genuine physiological changes will take longer. "The first few weeks are more about how your body responds to breathhold, and how to relax – people often don't realise how much physical tension they carry.

"Funnily enough, you learn how to breathe better by not breathing. It's also a good way to build confidence in the water, especially if people are afraid of the surf – you learn that there's a difference between the urge and the need to breathe, which means that you don't have to panic if you get dunked by a waye."

While some people freedive as part of another activity, such as snorkellers and synchronised swimmers, others compete in free diving comps.

"Competitive freediving is a highly regulated sport, in which you try to swim for as far, as long or as deep on one breath as you can," Fisher says. "There are six events, three in the pool and three depth. It's fully professional and a challenging sport at the elite level because adrenaline and tension are detrimental to performance, and you require a huge amount of focus.

"But, at the same time competing (at any level) is very rewarding, as you have to overcome a lot of mental barriers, which confer benefits that transfer into all areas of your life."

Australian freediving boasts some outstanding talent, including Fisher herself, who was the 2011 world champion. "In the pool, Amber Bourke has won bronze at a world championships," she says. "For the men we have some big upcoming talent - our national record holders include LA-based actor Tanc Sade who competes in the pool, and in depth we have Antony Judge. We may also be surprised by some promising newcomers at the upcoming Pan Pacs." At the time of writing, the Pan Pacific Pool Freediving Championships were scheduled to be held in Brisbane, from November 26 to 28.

To find out more about freediving, head to australianfreediving.org.



and you don't have to be a young muscle man to succeed, even at the elite level," she says. "There are world record holders in their 50s."

Freediving is also outstandingly good for cardiovascular fitness.

"Actually, it benefits the whole cardiopulmonary system," Fisher explains. "It's not the same as aerobic/cardio training – the benefits are more like what you would get from spending time at altitude."



A scientific review concluded there was no evidence of brain damage resulting from competitive freediving. The dive response means that even when your body is in a hypoxic state overall, your brain remains well oxygenated, and will be right up until the very end of a breath-hold

Competition freediving has had many fatalities In over 65,000 competition dives and millions of training dives, nobody has ever died from hypoxic blackout when basic safety protocols have been followed. Most of your oxygen (>50%) is stored in your blood, in haemoglobin. Thirteen percent is stored in muscle in myoglobin, and up to 35 percent in the lungs. Breath hold is about how well you conserve the oxygen you have, and this comes down to the dive response. Big lungs can help, especially at the elite level, but they're not the most important thing

Source: Australian Freediving Association

KITEBOARDING

Combining aspects of wakeboarding, windsurfing, surfing, paragliding and gymnastics into one, kiteboarding is one awesome extreme sport. Imagine harnessing the power of the wind with a great big kite that propels you across the water? Exhilarating. And unlike some other "wind sports", kiteboarding is relatively easy to learn.

"If you have lessons with a qualified instructor you're likely to find that, once you have the kite under control, you can take off relatively easily," says Alexandra Lockie, General Manager of Kiteboarding Australia.

While a lot of kiteboarding is about having knowledge of how the kite operates, you also need to have great core strength and some upper body strength. And while it's a great workout, it's not too taxing. "In fact, a bunch of kiters recently covered 1800km over just eight days up the Great Barrier Reef [see KitetheReef. org]!" Lockie says. "You can certainly go places on a kiteboard."

To get started, you'll need to find a qualified instructor. "Kiteboarding is definitely not a sport where you just 'give it a go'," Lockie warns. "You need to get lessons from a qualified instructor to make sure you're safe and also that the people on the beach and in the water are safe. The wind is a powerful beast and learning how to control your speed and power is critical."

Learning to kiteboard starts with learning to fly the kite, Lockie says. "This is challenging and takes some time flying it on the beach and then learning to drag your body in the water." The next step involves adding the board to the mix. Getting started and getting back to the beach are key skills you'll need to master.

How can you find the right instructor? Kiteboarding Australia have just started accrediting kiteboarding schools so soon you'll be able to identify instructors by looking for the Kiteboarding Australia brand. But right now, Lockie recommends you should look for someone teaching either the well-recognised British Kitesurfing Association curriculum or the International Kiteboarding

"You should ensure your instructor provides you with safety equipment, including a buoyancy vest, and also that they're not teaching too many students. We recommend a maximum of eight in a class using four kites."

Once you've had some lessons, Lockie advises that you get adequate insurance coverage to ensure if something goes wrong you're not left liable to anybody. (Kiteboarding Australia membership includes comprehensive insurance coverage.)

If you find yourself totally swept up with kiteboarding, you'll want to catch the best of the best in action. This November saw the start of the National Kiteboarding League, which will continue through the summer.

"It's a new series of events around Australia and New Zealand where the best freestyle and wave kiters in each state vie against each other to compete in a Grand Final on the Gold Coast in February next year," Lockie says. "Local events are also run by state associations and kite clubs." Head to kiteboardingaus.com.au for more information.





Forget boring old sit-ups. Stand up paddle boarding is a fantastic, low-impact core workout that also strengthens your knees, ankles and hips. The sport has surged in popularity in recent years, and for good reason - it's awesome.

"Stand up paddle boarding is for everyone, everywhere, "says Kristin Thomas, executive director of the Stand Up Paddle Industry Association. "It offers many different variations for all different levels and types of paddling. It's basically the bicycle of the water."

The best thing about stand up paddle boarding, or SUP, is that you can go as hard or as easy as you like - either smashing some serious cardio or just going for a relaxing cruise to enjoy the sun and fresh air. And, according to Thomas, it's really easy to learn.

"With the right equipment, on flat water, stand up paddle boarding is extremely easy to learn," she says. "One session or two to overcome the body's natural reaction to imbalance. and anyone can be fully acclimated,

gliding along, 'walking on water'."

You don't need to be super-fit to begin with, although good balance and upper body strength can help. And once you've got the basics, you can mix things up. Try catching waves, or do SUP yoga - yoga on your board, a major balancing act!

John Harle, from NSW's Central Coast, is a massive SUP fan. He started out on flat water, but now he SUPs in the surf.

"I could stand up straight away on the lake - I watched YouTube videos for correct paddle technique," he says. "Coming from a skateboarding and snowboarding background, I didn't find it too hard. It's all in the balance – they reckon it's like doing Pilates while standing on a medicine ball.

"But it took about six times out in the surf for me to catch waves. It's a lot harder in the ocean, but I mainly catch waves now. I have two boards: the Mal board I take out when surf is flat for core strength training."

Harle first tried SUPping at his daughter's birthday beach party.

"I try to get out at least once a week now summer is on the way. I've even taken RDOs during the week just to SUP. I'm usually out for about two hours. It's great - like walking on water. And if the ocean is clear vou can see everything! It's really trippy, but it puts you in touch with Mother Nature."

This new-found love of SUPping hasn't just given Harle a new favourite hobby; it's also done wonders for his health and fitness. "I've lost 12 kilos over the last year and haven't had a bad back since I started," he says. "I couldn't recommend a better work out."

For the super SUP serious, the Australian SUP titles are held each vear. The 2015 titles were held on the Gold Coast in October and featured surfing, a technical race between 4-8 kilometres of several laps in and out through the surf, and a 20-30 kilometre marathon. Want to enter next year?

Head to australiansuptitles.com for more details.

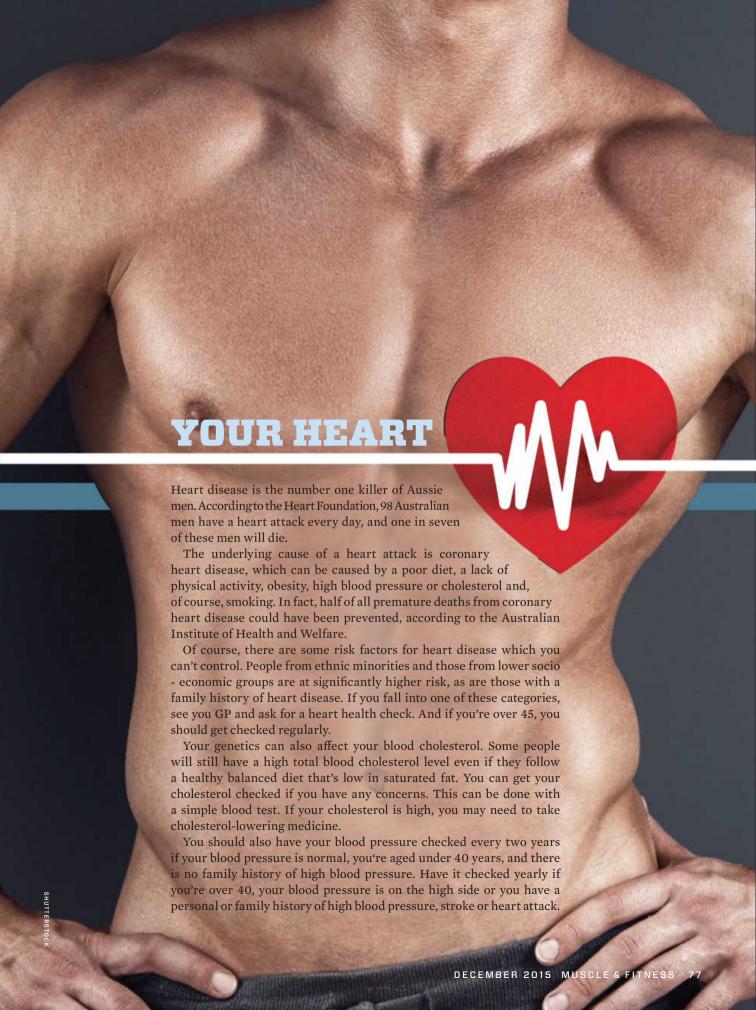
HOW'S YOUR HEALTH?

Aussie men are dying from diseases that could have been prevented through early detection. It's time for your check-up, stat.

he Australian Bureau of Statistics tells us that Australian women can now enjoy a life expectancy of 83.7 years. But us blokes? No such luck - we only have a life expectancy of 79.2 years. Still a good innings, yes, but why the disparity? Well, we won't get all technical on you, but basically, one of the main reasons is that men are just so damn lousy at getting to the doctor for a check-up.

Yep, it might feel a lot manlier to simply ignore those mystery pains and get on with the business of living. But leaving things until it's too late could mean that you end up with not much living left to do.

According to the PA Research Foundation, if you take out suicide and reckless death, five men die every hour in Australia from a disease that could have been prevented through early detection. It's time to get serious about your health, while you've still got it. Here's our check list. You can read it in your GP's waiting room. Now go and make that appointment.



YOUR MENTAL HEALTH

While heart disease is the biggest killer of Australian men overall, suicide is the number one cause of death for young Aussie males. According to Lifeline, men account for three out of every five deaths by suicide, making suicide the 10th leading cause of death for males.

"510.000 men die from suicide globally each year, that's one every minute." savs Adam Garone. Movember Foundation CEO. "This is an unacceptable state of affairs and should be a global priority. Yet it's hidden in the shadows and shrouded in stigma."

Globally, the rate of male suicide is alarmingly high. In Australia, 75 per cent of all suicides are male, yet the majority of the population remains completely unaware of just how many men are taking their own lives every year. The truth is, too many men are "toughing it out", keeping their problems to themselves and suffering in silence. Sadly, in many cases, the first time their families and friends hear that they've been doing it tough is in a suicide note.

"We know that women are actually more likely to suffer from depression, but more inclined to seek help," Garone says. "The truth we need to

accept and start talking about is that the rules of masculinity prevent many men from taking action when it comes to their mental health, right at the very time the need to most. Traditional notions of masculinity are effectively killing some men."

If you're struggling psychologically, you need to reach out for help. Your GP can offer confidential help and advice, as well as referring your to a relevant specialist.

But the most important thing you can do is reach out to loved ones - your friends, your family, According to Movember, one in two Aussie men will have a mental health problem at some time in their life. This means you're far from alone. Start the conversation today.

For mental health crisis support, call Lifeline on 13 11 14.

YOUR PROSTATE

Every day, more than 30 Aussie men are told they have prostate cancer. According to the Prostate Cancer Foundation of Australia. prostate cancer accounts for the second highest number of male cancer deaths in Australia.

In its early stages, prostate cancer might not show any symptoms, but symptoms of early prostate cancer can include difficulty passing urine; a slow, interrupted flow of urine; frequent

passing of urine, including at night; or urinary incontinence.

Prostate cancer is more common as you get older, or if you have a close blood relative who's been diagnosed. Poor diet and lifestyle choices can also contribute. If you're worried, ask your doc about prostate cancer screening. Don't freak out - no-one is going to stick their finger up your bum. The first line test for prostate cancer is a PSA test - a blood test that checks

for prostate specific antigen in the blood. Low levels of PSA are normally present in the blood.

If you do come back with high levels of PSA, it's not necessarily cancer. It's more likely to be caused by a non-cancerous growth of the prostate that happens with ageing, or inflammation or infection of the prostate. The only way a doctor can determine if you have prostate cancer is to perform a biopsy to test prostatic tissue.

YOUR PHYSICAL ACTIVITY

Physical inactivity is the second greatest contributor to the cancer burden in Australia, behind tobacco smoking, and 12 million Aussie adults (70 per cent) are either sedentary or have low levels of physical activity.

According to a Canadian study published in the *Annals* of *Internal Medicine*, more than half of the average person's waking hours are spent sitting: watching television, working at a computer, commuting...

National Heart Foundation CEO Mary Barry says that epidemic levels of sedentary behaviour have the potential to consign present and future generations of Australians to live lives under the shadow of ill health and early death. "Just as smoking destroyed the health of generations of Australians, so too does sedentary behaviour have the potential to consign too many of us to an early grave," she says.

And while you might be scoffing at all this – hey, you LIVE in the gym, right? – if you're not doing adequate cardiovascular training, you still may not be as physically fit as you think. You need a mix of both aerobic and resistance training to keep physically fit.

YOUR BITS

How's your sexual health? If you're just going by how your genitals look and feel, you could be in for a shock. Many people who have an STI (sexually transmitted infection) don't show any obvious symptoms or signs. So you could be putting your own health and the health of your partner/s at risk.

According to Dr Josephine Lusk, Director of Short Street Sexual Health Centre at Sydney's St George Hospital, Aussie men are genuinely less likely to prioritise their sexual health than women. But with STIs on the rise in a big way, you might want to think about being tested.

Chlamydia is the most common reported STI among young people in Australia. According to the Department of Health, it was the most frequently reported STI in Australia in 2012, with 82,707 new cases. That amounts to 355 cases per every 100,000 people.

Gonorrhoea is also on the increase, from 35.1 per 100,000 in 2008 to 58.9 in 2012. HIV and syphilis are also continuing to rise, particularly among gay men.

So how often should you get tested? "It depends on how sexually active you are," says Dr Lusk. "For example, it's very

important for anyone to be tested for STIs if changing sexual partners or concurrent sexual partners, or having unprotected sex. Both men and women should have an STI check if they have symptoms or are an STI contact."

Many men are afraid and/or embarrassed to get tested, but there's really very little to fear. They're not going to chop your doodle off.

"It's free and easy and usually involves a simple urine test and blood test," Dr Lusk says. "STI and sexual health testing are conducted at sexual health clinics which are discreet and you can be tested by sexual health professionals." GPs can also provide STI and sexual health testing.

Leaving things too late can leave you feeling very sorry. "Untreated Chlamydia/gonorrhoea can cause chronic testicular pain, urinary symptoms and infertility," Dr Lusk says. "Untreated HIV and STIs can also be life-threatening, and also put sexual partners at risk."

To find out more info, head to sti.health.gov.au



YOUR SKIN

Australia has among the highest rate of skin cancer in the world. According to the Cancer Council, about two in three Australians will be diagnosed with some form of skin cancer before the age of 70.

Protecting yourself is a no-brainer, but for some reason, men are still not protecting themselves. According to the ABS, 69 per cent of Australians who die from melanoma are men. And if death isn't enough to put you

off slapping on some sunscreen, maybe a little vanity will – too much sun exposure can add years to your appearance. According to a recent study from the University of Queensland, men and women who wore sunscreen "most days" had no detectable ageing of the skin after four and a half years.

But back to the big C word. If caught early, 95 percent of skin cancers can be cured. So get your

skin checked out every 12 months by your GP or at a skin cancer clinic. In the meantime, look out for anything unusual. Skin cancers don't all look the same, but there are some signs to look out for:

A spot that is different from other spots on the skin:

A spot, mole or freckle that has changed in size, shape or colour;

A sore that doesn't heal; and A spot that bleeds



You don't smoke, which is awesome, but there are other lifestyle factors that can be putting you at risk of disease. Around 37,000 Australian cancer cases could be prevented each year largely through lifestyle change, according to a new study funded by the Cancer Council.

"Of 13 identified risk factors, smoking, UV radiation, body weight, poor diet and alcohol caused around 90 per cent of all preventable cancers," says Professor Sanchia Aranda, Cancer Council Australia CEO. "It's time to bust the myth that everything gives you cancer and do more to reduce the risks that we know cause cancer.

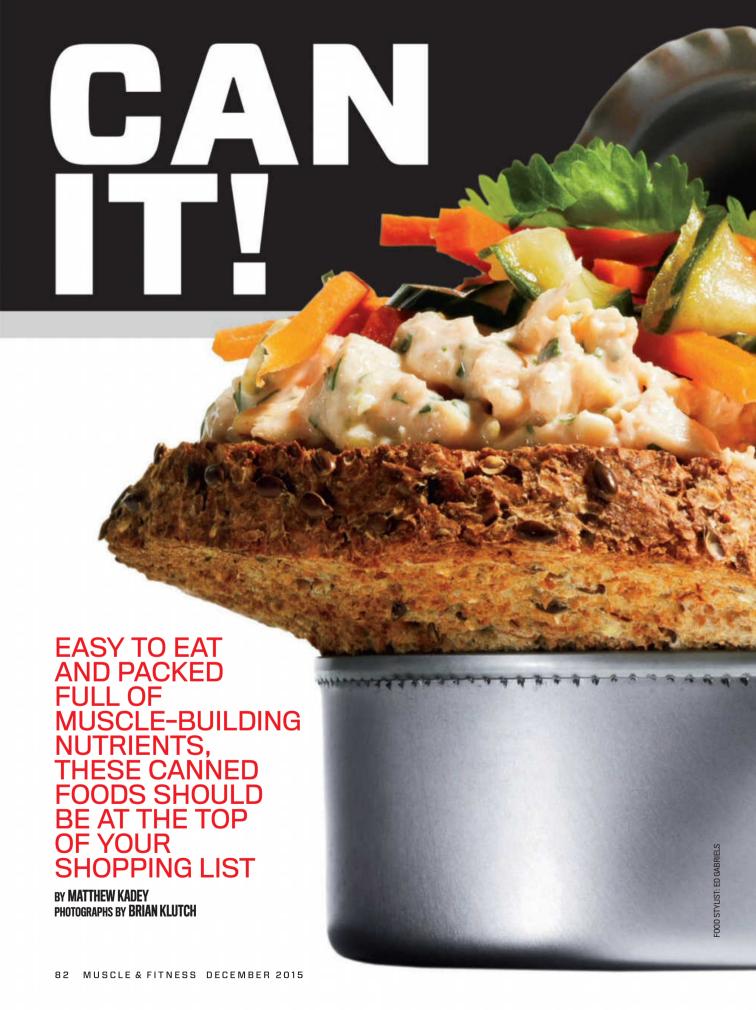
"The association with smoking is well-known, but the study shows that 7000 new cancer cases a year are also attributable to low fruit and vegetable intake, low fibre intake and eating excess red meat. Eating more fruit, vegetables and wholegrains is a positive step we can take to reduce our risk. These healthier choices also reduce obesity, the cause of 3900 cancer cases in its own right, and balance overconsumption of red and processed meat, which account for a further 2600 cases."

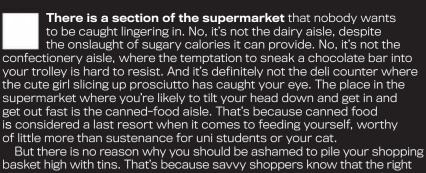
Professor Aranda said the study estimated 1550 cases of cancer a year are caused by low fruit consumption alone. And currently, only around 30 percent of Aussies are eating two serves of fruit a day. So says a recent Roy Morgan poll, which also found that a mere two percent of the Australian population eat the minimum daily fruit-and-veg intake recommended by the National

Health and Medical Research Council – that's two serves of fruit and five of veg a day, people.

Try keeping a food diary for a week and see how much of the good stuff (and the bad stuff) you're eating. Need to up your intake? There are plenty of ways to get more fruit and veg into your day. Smoothies are fast, easy and delicious, plus they're a handy way to sneak some of the less tasty "superfoods" (here's looking at you, kale) into your diet without you even noticing. And even if you're just having a boring old cheese sandwich you can add some tomato. It's not rocket surgery.

If you have any concerns about your health, always see your GP.





canned food can deliver all the protein you can stomach at budget-friendly prices, not to mention plenty of other surprising nutritional perks to help you get jacked. Also consider canned proteins like beans and fish as your answer to shortcut healthy meals. So raise your head high and push vour trolley into the darkness with pride on the hunt for these protein heavyweights as you proudly shout: "Don't slam the can!"





While there is nothing particularly glamorous about chicken stuffed into a can, it's a great way to load up your sandwiches and salads with protein without needing to turn on the oven. Since canned chicken is, essentially, just chopped-up white meat, it has a stellar protein-to-fat ratio of about 5 to 1, making it a convenient way to help you amass more mass. Inside each can is also a significant amount of selenium. Acting as an antioxidant, selenium may help speed up recovery from your time heaving iron by lessening the muscle cell-damaging effects of exercise-induced oxidative stress.

- 2 tbsp rice vinegar
- 2 tsp honey
- 2 tsp fish sauce
- 1 medium carrot. cut into thin matchsticks
- ½ small cucumber, thinly sliced
- 2 85g cans chicken
- 1/3 cup plain yoghurt
- 1/4 cup chopped coriander
- 2 spring onions, thinly sliced 2 tsp finely chopped ginger
- 2 tsp Sriracha chilli sauce Juice of ½ lime
- 4 slices sprouted bread, preferably toasted

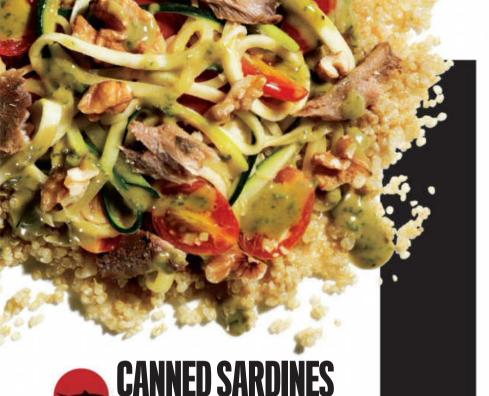
DIRECTIONS

Whisk together rice vinegar, honev and fish sauce in a bowl. Add carrot and cucumber. Set aside for 30 minutes. In a separate bowl, stir together chicken, yoghurt, coriander, spring onions, ginger, chilli sauce and lime juice.

Divide chicken mixture between 2 slices of bread and top with vegetables and remaining bread slices.

A DESCRIPTION OF THE PROPERTY AND A PARTY

Look for chicken that is canned in water instead of broth or oil for a cleaner product.



SARDINE. OUINOA & ZUCCHINI

Few foods can offer such a fantastic nutritional value for your buck as do wrongly maligned sardines. They supply top-notch protein (nearly 23 grams in a typical can) along with laudable amounts of must-have omega-3 fatty acids, which have been shown to help turn on muscle protein synthesis. In fact, a single can of sardines delivers more than twice the amount of daily omegas that scientists recommend for optimal health. Sardines are also a fantastic source of vitamin D that has been revealed to positively impact testosterone levels. Eat the softened bones for good amounts of calcium to help fortify bone strength.

NOODLE BOWL SERVES 2

INGREDIENTS

- ½ cup quinoa

 1 medium-size
 zucchini
- **3** tbsp extra virgin olive oil
- 1 cup cherry tomatoes, halved
- 2 garlic cloves, chopped
- 1 tbsp red wine vinegar
- 6 canned anchovies
- 1/4 cup parsley
- 14 tsp red chilli flakes
- chilli flakes ¼ tsp black pepper
- 2 100g cans sardines, water packed, drained
- 2 tbsp chopped walnuts

DIRECTIONS

Place quinoa and 1 cup water in a small saucepan. Bring to a boil and reduce heat until quinoa is tender, about 12 minutes.

Use a julienne peeler or a sharp knife to cut zucchini into noodle-like strands.

Heat 1 tbsp oil in a large frypan over medium heat. Add tomatoes and garlic; heat 2 minutes or until tomatoes have softened. Add zucchini noodles and heat until zucchini is tender, about 2 minutes.

Blend together remaining oil, 1 tbsp water, red wine vinegar, anchovies, parsley, chilli flakes and black pepper.

Place quinoa in bowls and top with zucchini noodle mixture, sardines and walnuts. Drizzle on dressing.

MACROS PER SERVING

685

27

36

38

NEED TO KNOW

The downfall of canned proteins is that they are often packed in cans lined with the sketchy chemical bisphenol-A (BPA). Many companies, like Safcol, are now using cans not lined with BPA, so you don't need to consume chemical cuisine.



TUNA SWEET POTATO BURGERS SERVES 2

This supermarket standard remains a bodybuilding staple for good reason. With up to 22 grams of protein in a 85g serving, canned tuna can undeniably keep mass growth going in full force. Frugal shoppers will rejoice that less pricey canned light tuna contains just as much protein as canned white (albacore) tuna. The protein-packed flesh also contains notable amounts of selenium and vitamin B12. Your body requires vitamin B12 to convert the food you eat into the energy you use to show off on the gym floor. Vitamin B12 is also necessary to make DNA, the genetic material at the heart of all cells in the body including those that make up skeletal muscle.

INGREDIENTS

- 1 medium-size sweet potato, peeled and chopped
- 2 140g cans water-packed tuna, drained
- 1/2 cup breadcrumbs
- 1 large egg
- 2 spring onions, chopped
- 1 jalapeño pepper, seeded and minced
- 2 tsp Dijon-style mustard
- 1 tsp garlic powder
- 1 tsp cumin powder
- 1/3 cup olive oil mayonnaise
- ¼ cup finely chopped oil-packed sun-dried tomatoes
- 1 tbsp fresh lemon juice

DIRECTIONS

Steam or boil sweet potato until tender. Place cooked sweet potato in a large bowl and mash. Stir in tuna, breadcrumbs, egg, spring onions, jalapeño, mustard, garlic powder and cumin powder. Form mixture into 4 patties and cook in an oiled frypan over medium heat for 3 minutes per side, or until golden on both sides.

Stir together mayonnaise, sun-dried tomatoes and lemon juice. Serve burgers topped with mayonnaise.

MACROS PER SERVING

673

40

31

42





CANNED BEANS BEAN AND BACON SOUP SERVES 4

Muscle men shouldn't rely solely on animal flesh for their protein fix. That's because canned beans have something very important that tinned meats lack, namely fibre. For example, on top of supplying about 20 grams of plant-based protein in a onecup serving, navy beans deliver a whopping 13 grams of dietary fibre. Essentially indigestible by the body, fibre works to slow down digestion, which can benefit your physique in two ways. First, a high-fibre diet helps promote satiety, which can go a long way in reducing those craving-induced visions of doughnuts dancing in your head in response to heavy training. Also, by slowing the release of the carbohydrates contained in a meal into your bloodstream, fibre works to lessen any spikes in blood sugar, which brings about a more moderate release of insulin that can put the breaks on fat storage. On top of protein and fibre, lowbrow canned beans also supply a wide range of vital vitamins and minerals an active body needs.

500g lean bacon

- 1 brown onion, diced
- 2 medium carrots, chopped
- 2 tbsp tomato paste
- 1 tsp dried thyme
- 1/4 tsp chilli powder
- 14 tsp black pepper 2 400g cans navv
- beans, drained and rinsed 5 cups low-sodium
- chicken stock 4 cups chopped

kale

Cook lean bacon in a frypan over medium-low heat until beginning to turn crispy. Transfer bacon to a paper towellined cutting board and let cool; reserve fat. Once cool enough to handle, chop bacon into 1½cm pieces.

Heat 1 tbsp of the reserved bacon fat in a large saucepan over medium heat.

Add onion and carrot: cook until softened, about 6 minutes. Add tomato paste, thyme, chilli powder, black pepper; heat 30 seconds. Add beans and chicken stock and simmer for 15 minutes. Stir in kale and heat until wilted. Add bacon.





When it comes to canned fish, there are plenty of reasons to cast your line for salmon. It's a fantastic means to load up on muscle-sculpting protein, with a mere 30g serving delivering nearly 7 grams of this much beloved macronutrient. The protein in this swimmer contains a full arsenal of all the amino acids. Another big bonus is significant levels of mega-healthy omega-3 fats. Recent research suggests that higher intakes of these overachieving fats can reduce muscle soreness. You'll also reap the rewards of consuming a greater amount of vitamin D. A recent University of Wyoming, US, study found that athletes with higher blood vitamin D levels were less

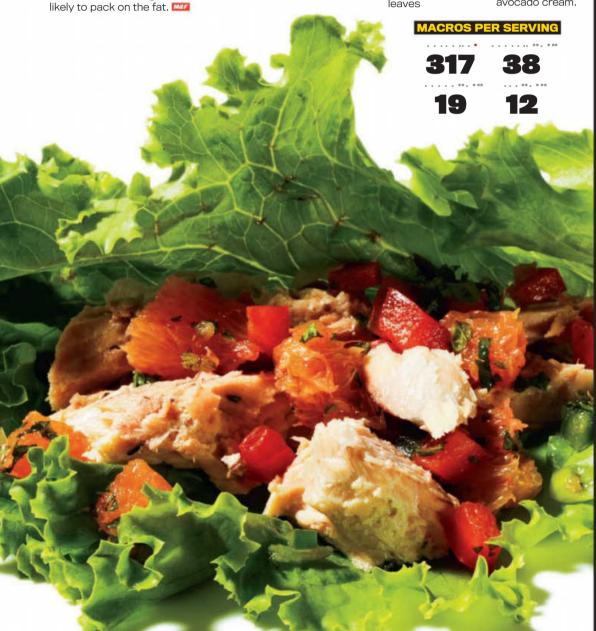
INGREDIENTS

- orange, peeled and chopped
- red capsicum. chopped
- jalapeño pepper, seeded and minced
- 1/3 cup chopped fresh mint
- spring onion, thinly sliced
- 1/4 tsp salt
- cup plain Greek yoghurt
- ½ avocado Juice of 1/2 lime
- **2** 140g cans salmon, drained and flaked
- large lettuce leaves

DIRECTIONS

Toss together orange, capsicum. jalapeño pepper, mint, onion and salt. Place yoghurt, avocado and lime juice in a blender container and blend until smooth.

Divide salmon among lettuce leaves and top with orange salsa and avocado cream.



Red salmon might be more pricey, but it packs way more vitamin D than the regular pink stuff.



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THE CHRISTMAS LEFT OVE



REAST

CRANBERRY-TURKEY SALAD

SERVES 2

300g turkey breast, cut into 2.5cm cubes

- ¼ cup chopped red onion
- ¼ cup chopped celery
- ¼ cup dried cranberries
- 1 tbsp extra virgin olive oil

3 tbsp lemon juice

1 tbsp Dijon mustard Sea salt and pepper, to taste

Place all ingredients in a mixing bowl and combine until they are well distributed. Serve straight up, in a wrap or on the bread of your choice.

THE MACROS

263 | 30 PROT

30g | 11g PROTEIN | CARBS 10g

CHEF'S TIP

You don't have to wait for Christmas: anytime you have leftover chicken or turkey, you can double the recipe for meals all week.





STUFFING & TURKEY CASSEROLE

ERVES 4

- tbsp olive oil
- cups stuffing
- cup coconut milk
- cups cooked turkey, cut into small cubes or shredded off the bone

1) Preheat oven to 175°C.

2) Coat a casserole dish with olive oil using a pastry brush. Place all ingredients in a bowl. Mix well and place in the casserole dish. Cover and bake in the oven for 25 to 30 minutes. Serve hot.

THE MACROS

514 29g **24**g CALORIES

SWEET POTATO MASH

SERVES 2

300g sweet potatoes

1/2 cup skim milk

Sea salt and pepper, to taste

- ½ tsp cinnamon
- ½ tsp chopped thyme
- 1) Peel all the skin off sweet potatoes.

- 2) Blend potatoes with an electric mixer. Slowly add milk. Add salt and pepper.
- 3) Place mixture in a sauce pot over medium heat, stirring often. Heat for 3 to 5 minutes until desired temperature is reached. Place in a serving dish; top with cinnamon and thyme.

THE MACROS

137 CALORIES | PROTEIN

0g



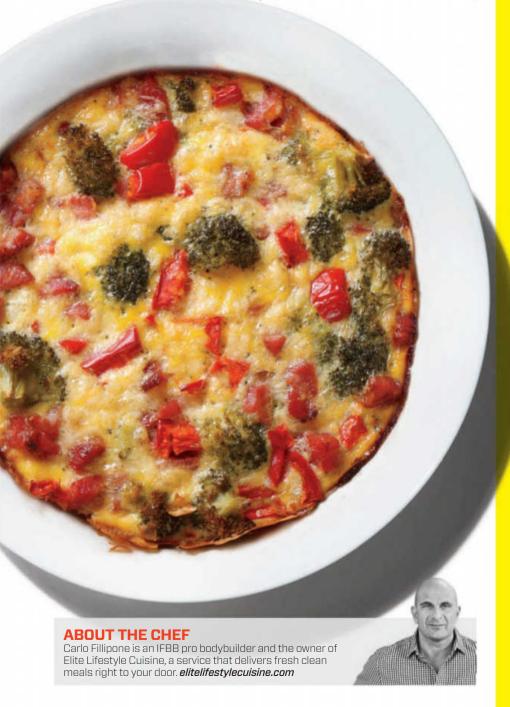
HAM & VEGIE QUICHE

170g cooked ham, cut into ½-cm pieces 3/4 cup broccoli florets 115g reduced fat cheddar 8 eggs ½ cup skim milk Salt & pepper to taste

1) Scatter ham, broccoli and cheese in a 22cm pie dish. Whisk remaining ingredients in a bowl until blended. Pour into pie plate. 2) Bake for 40 minutes at 190°C. Cover the top with foil if it starts to get too brown.

THE MACROS

30g | 3.5g PROTEIN | CARBS 275





PUMPKIN-SPICE PROTEIN

SERVES 1

250ml water (you may use skim or whole milk instead)

40 g vanilla protein powder

¼ cup puréed pumpkin

½ tsp cinnamon

½ tsp nutmeg

½ cup ice

Combine all ingredients in a blender. Blend for 45 to 60 seconds, or until smooth. For a thicker shake, add more ice.

MEF

THE M	ACROS
186	23g
CALORIES	PROTEIN
17g	4g
CARBS	FAT



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WANT GREAT LUNGS AS WELL AS A GREAT BODY? TRY THIS HYBRID BODY BLAST BY RYAN TERRY, EUROPE'S FIRST MEN'S PHYSIQUE OLYMPIAN.

BY JOHN PLUMMER /// PHOTOGRAPHY BY CHRISTOPHER BAILEY



IT'S THE HOLY GRAIL

of fitness - a physique that performs as well as it looks.

Ryan Terry, who this year became the first European to qualify for the men's physique contest at Olympia, has never had a problem with the latter.

Terry won the world's most prestigious male beauty pageant, Mister International, in Indonesia in 2010 and has modelled underwear for Calvin Klein. He got serious about weight training a few years ago and won his first men's physique contest - the UK Nationals - in 2013. After winning the overall Arnold Classic Europe and British Championships the same year, he was awarded his IFBB pro card then recorded back-to-back victories in America to qualify for the Olympia, the most prestigious show on earth, where he came in fourth. But how well can his perfect form perform?

Terry decided to find out this year by experimenting with some gruelling functional fitness workouts. Every Sunday, in the run-up to his run of three contests in six weeks in America, he swapped one of his usual steady-state

cardio sessions for an ultra-intense hour-long circuit session.

Many physique athletes in contest mode shy away from this kind of workout, fearing it might burn their hard-earned gains. They prefer the relative comfort of the treadmill. But the fact that Terry won two out of three of his competitions, and finished second in the other, suggests having a good set of lungs is not incompatible with a first-class physique.

"I did a circuit every Sunday in the run-up to my wins in Miami and Pittsburgh," says Terry. "All the exercises described in this article were included at some point."

Terry joined fellow members of Team Foodtech for the circuit, which made it fun and competitive. "It was a great way of shocking my body, adding variety to my routine and burning fat," he says. "Contest prep can get a bit tedious and doing something completely different like this helped me to stay motivated.

"I still did my usual bodybuilding training and regular cardio during the week but I thought this would

give me a little something extra."

Don't be fooled by the fact that this photoshoot took place in a CrossFit gym. It is a hybrid functional fitness workout designed by Terry for guys who train primarily for aesthetics.

It combines bodybuilding moves like biceps curls with old-school bodyweight exercises like pull-ups and metabolic killers like tyre flips, with a little strongman thrown into the mix in the shape of lifting beer barrels, which can be substituted for barbells. The only CrossFit move is the overhead barbell lunge.

"It's functional training for an all round physique workout," says Terry. "It's designed to strengthen the core and shock your body. My day-to-day training is bodybuilding, so this spices things up and keeps things exciting."

He admits he struggled at first: "It was hard work because I wasn't used to it. But within three or four sessions. I was starting to see improvements and it helped to get me into great shape for my wins in Pittsburgh and Miami."

RYAN TERRY

PLACE OF BIRTH Nottinghamshire, UK

> **HEIGHT** 178cm

WEIGHT 90kg off-season; 87kg contest

CAREER HIGHLIGHT

Two-time US pro show winner and Olympia fourth place.

AMBITION

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TRAINING ADVICE

Experiment and find what works for you then be consistent in your training and nutrition.

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Instagram @ryanjterry

TRY THIS WORKOUT

This isn't a hypertrophy workout. The goal is to increase fitness levels and get shredded, so concentrate on form and endurance rather than heavy weights. Most sets are performed for a set period of time rather than a set number of reps in order to build stamina. Rest for just a maximum of 30 to 60 seconds between sets.

WIDE GRIP PULL-UP

Do 3 sets to failure on wide grip followed by 3 sets to failure on narrow grip.

"Keep your body completely straight throughout the movement and focus on keeping your lats spread at all times. This exercise is not about how many reps you do – it's about getting a continuous contraction in your back. If using your own body weight is too easy, you can put a weighted belt around you; if it's too difficult, you can get a partner to assist lifting you or you can use a machine. Just focus on form."



This exercise is not about how many reps you do - it's about getting a continuous contraction in your back."



BARBELL CURLS

Do 1 warm-up set of 15-20 reps then 3 working sets of 10-12 reps and a final drop set.

"Most men's physique guys, myself included, want bigger arms, which is why I've adapted the circuit to include this exercise. Keep your back straight, your elbows tucked in tightly to your waist, and go for a full contraction of the biceps. Slow the move right down and ensure there's no swinging."



RING DIPS

Do 4 sets to failure.

"Dips on rings are so much harder than they are on machines. Your core has to be completely tight to stop the rings going outwards. After attempting this. I'm not surprised gymnasts are so strong. It's so tough, but great for your triceps. If you don't have rings or find them too difficult, use a machine instead or improvise with a bench."



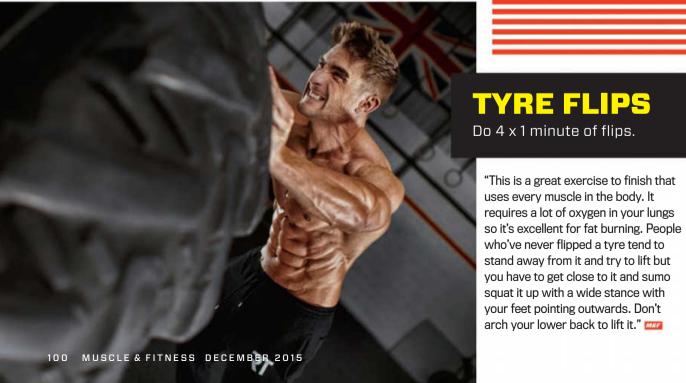


OVERHEAD BARBELL LUNGE

Do 4×10 lunges on each leg.







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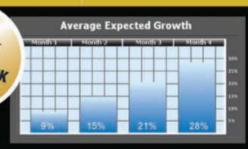
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THE STRAIGHT UP SERIES

Build a back that's big, strong and powerful with this heavy-pulling workout

BY JOE WUEBBEN /// PHOTOGRAPHS BY PER BERNAL /// WORKOUT DESIGNED BY JIM RYNO /// MODEL: SERGI CONSTANCE







MOST MEN THINK OF TWO

things as they approach their back workouts – width and thickness. Those are fine goals, but don't forget that by focusing on building brute strength and power, you'll have an easier time reaching your size goals. Not only will strength and power help you get bigger, these attributes will also carry over to the big three – the squat, bench and deadlift

You'd be hard-pressed to find a back workout oozing more testosterone than the one we present here. It starts with body-weight pull-ups using wrist straps, which should allow you to squeak out a few more reps to promote hypertrophy. Worried about grip strength taking a backseat with the straps? Don't. Pendlay and heavy dumbbell rows will take care of that. With the Pendlays

(named after renowned Olympic lifting coach Glenn Pendlay), the ability to rip dead weight off the floor requires both strength and power, the latter of which should do well to activate the fast-twitch muscle fibres that are more prone to growth than the slow-twitch (endurance) ones. To finish, there's the weighted back extension to work the spinal erectors – because your back doesn't stop at the lats.



THIS MONTH IN SUPPLEMENT NEWS

Popular pre-workout supps tend to combine a lot of the same ingredients. But what does each of these ingredients really do? We tell you what's what and show you where to get them.

BY RAZVAN RADU

CHARGED UP

WHO'S GOT THE GOODS?

This chart breaks down five popular pre-workout products and the main ingredients you'll get from each.











CAFFEINE It's the base ingredient of
many pre-workouts because it works.
It's been proven effective in boosting
physical performance, burning fat
and increasing focus.

BETA-ALANINE Helps prevent muscle fatigue by combining with histidine and acting as a buffering agent in the muscle. This leads to the ability to lift longer.

CITRULLINE Prevents the formation of ammonia in muscles, reducing fatigue. Also increases nitric oxide (NO) production, which results in bigger pumps and improved blood flow.

ARGININE An amino acid that maximizes NO levels in the bloodstream, which dilates blood vessels, not only providing a big pump but also augmenting nutrient delivery.

NE

93

AGMATINE SULFATE Has been shown to expand NO production and mildly stimulate the central nervous system, resulting in a short-term strength gain.

GLYCEROL Serves one main function: fluid control. The supplement helps stoke hydration and achieve fullness by drawing more water into muscles and blood vessels.

THEANINE This supplement has been proven to simultaneously improve concentration and mental relaxation, allowing you to achieve a mental peak during training.

SUPPLEMENTS						
GAT PMP	Allmax Razor8	BPI Pump HD	MuscleTech Anarchy	APS Mesomorph V2.0		
X	X		X	×		
×	×		×	×		
×		×		×		
×	×		×	×		
×	×			×		
×	×	×	×			
×	×	×	×			

SUPPLEMENT OF THE MONTH



ADD THESE INGREDIENTS TO YOUR FAT BURNER STACK



certain supplements on

the market that will help

CAFFEINE

The anhydrous form of caffeine is absorbed quickly; dicaffeine malate's absorption is more delayed. Combining these two forms allows for a prolonged thermogenic effect.



THEACRINE

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ingredients to your

supplement stack.

HORDENINE

Hordenine is a plant extract known for its metabolismboosting capabilities: it's also been shown to help boost the effects of other stimulants such as caffeine and theacrine.



GINGER ROOT CO. EXTRACT

Ginger root extract acts as a thermogenic and significantly boosts metabolic rate. It is also a non-stimulant, making it a good pair with supplements such as caffeine.



RAUWOLSCINE

Rauwolscine is a rearranged form of the yohimbe compound you may be familiar with. It functions by shutting down fat storage while increasing the release of fatty acids for energy.



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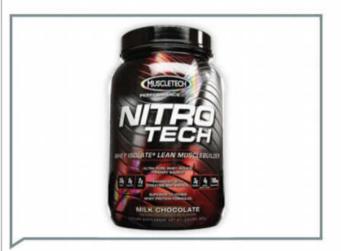


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World title boxer ANTHONY "MILLION DOLLAR" CROLLA on his amazing physical transformation.

BY JOHN PLUMMER

Anthony Crolla provided one of sport's most uplifting stories this year. The Mancunian began 2015 with a fractured skull and broken ankle sustained when burglars hit him with a concrete slab. His trainer, Joe Gallagher, contacted strength and conditioning coach Martin Cullen in February and he oversaw a remarkable physical transformation that saw Crolla enter the ring against WBA lightweight world champion Darleys Perez in July in the shape of his life. The fight was controversially scored a draw and Crolla was granted an immediate rematch, which was scheduled for November, "Anthony's fitness in the first few weeks were shocking," says Cullen. "But he started progressing and was soon deadlifting 150 kg."

How fit were you when you started training for this fight?

When I first came in I still had a metal plate in my ankle and was limping so I couldn't even run for a while and my fitness was awful.

What about strength levels?

My strength was awful, absolutely shocking. I was very weak. I weighed 9st 5lbs [59kg] back then and working with Martin my weight went up to 10st 10 [68kg] before I started cutting down to 9 st 9 lbs [61kg]. The best thing is my strength and power increased while my weight was coming down.

How important is strength for boxers?

Strength is very important but you've got to be careful about how you build it. I have to make weight so I can't put on too much muscle, plus it could



Manchester, UK

28

To be world champion

slow me down. I needed to increase muscle but stay fast and agile.

174cm

61kg

Which muscles are key for boxers?

A strong lower back, upper back, glutes and quads are important to improve posture and make you more powerful. A boxer's posture is naturally bad because we're hunched over so much and that can slow your limbs down and affect the speed and power of the arm when throwing punches.

How do you combat this?

It's about balancing the body so everything is strong and works efficiently. The back, glutes and quads are particularly important for boxers.

What was the plan?

The plan was to try to put some muscle on. My body had wasted away. I had done some cleans and presses before but nothing serious. Martin wanted to work individual muscle groups.

How did it break down?

We did a three-day split routine, Each week we did a day of chest, shoulders and triceps, a day of back and biceps and a day of legs. We did abs every workout.

What kind of rep ranges?

I started with low weights and high reps to get my body switched on then gradually increased the weight and lowered the reps. We started off doing 10-15 reps. then 10-12, 10-8, 6-8 and at the end 5 and 2.

How many sets?

For chest we would do 10 to 15 sets plus warm-ups; for shoulders we'd do 10 sets; triceps and biceps 5-8 sets. Back is a big muscle group and vital

for boxers so we did two upper back and two lower back movements for a total of about 15 sets. Legs were also about 15 sets.

How did your strength improve?

It went through the roof. When I started I was dumbbell pressing 10-15 kg. By the end I was doing 42.5 kg for reps. Lateral raises was my worst exercise. To begin with I was struggling with 3 and 5 kg but I worked up to 17.5 kg dumbbells.

Do most boxers train with weights these days?

There are still some boxers out there who have never touched weights, which is unbelievable, but also there are some who train too much like bodybuilders and bulk up too much.

How has your diet changed?

I'm eating more food, especially protein and fibrous carbs, to recover faster from the intensity of my workouts. I'm now eating 5 to 6 meals a day plus a couple of protein shakes.

"IT'S ABOUT BALANCING THE BODY SO EVERYTHING IS STRONG AND WORKS EFFICIENTLY."





Clean. Powerful. **Extremely modest.**

Bulk Nutrients' Whey Protein Isolate isn't one for the rock star lifestyle.

While other proteins are marketed with catchy slogans, flashy graphics and big name endorsements, our WPI is extremely understated, preferring to let the facts [and a **legion of passionate fans**] speak for themselves.

Up to **91% protein**, our WPI is exceptionally pure containing only raw WPI, flavouring and sweetener – nothing else. Sourced from GMO free, grass fed New Zealand cows and **ultra filtered to ensure virtually no lactose** exists in the finished product (which means no more bloating!)

When it comes down to what you feed your muscles, no buzzwords, special deals or industry hype can substitute for a **high quality protein** and transparency in the manufacturing process.

Not all proteins are created equal – **try Bulk Nutrients' WPI** and experience a new level of purity!



1KG FOR \$36Only \$1.09 per serve!



5KG FOR \$149Just 90c per serve!

1kg flavour splits available, mix and match from our ten great flavours

